

**WRIT No. 2037-B**

<b>EX PARTE</b>	<b>§</b>	<b>IN THE 83RD JUDICIAL</b>
	<b>§</b>	
<b>SONIA CACY,</b>	<b>§</b>	<b>DISTRICT COURT OF</b>
<b>APPLICANT</b>	<b>§</b>	
	<b>§</b>	<b>PECOS COUNTY, TEXAS</b>

**POST-CONVICTION APPLICATION FOR  
WRIT OF HABEAS CORPUS, ARTICLE 11.07**

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## WRIT NO. 2037-B

EX PARTE	§	IN THE 83RD JUDICIAL
	§	
SONIA CACY,	§	DISTRICT COURT OF
APPLICANT	§	
	§	PECOS COUNTY, TEXAS

### POST-CONVICTION APPLICATION FOR WRIT OF HABEAS CORPUS, ARTICLE 11.07

Having considered the Amended Application for a Post-Conviction Writ of Habeas Corpus filed pursuant to Article 11.07 of the Texas Code of Criminal Procedure, the proceedings of trial, the Court's file in the above-numbered cause, and the evidentiary hearing, this court finds that Applicant is entitled to the relief she seeks. The following points, summarized below, highlight the pertinent facts and conclusions that are set out in detail herein. This court believes that its findings support Applicant's entitlement to relief.

## 1 Summary

### Applicant's Claims Regarding False Testimony and Newly Available Evidence

- a) Joe Castorena was a toxicologist with the Bexar County Forensic Lab who supervised the arson testing in this case in 1991. Castorena testified at Applicant's trial that the clothing remnants of the murder victim, Bill Richardson, tested positive for the presence of an accelerant (gasoline). This testimony was the most damaging evidence presented by the State in support of its case against Applicant.
- b) Castorena was the first and only "expert" involved in this case to conclude that there was an accelerant on Bill Richardson's clothing remnants. The presence of an accelerant was not found on any other physical evidence tested by the State.
- c) In 2010, Castorena responded by letter to Applicant's habeas counsel's request for information wherein Castorena admitted, for the first time, that there was contamination in the morgue where Bill Richardson's body was autopsied.
- d) Castorena testified at the 2014 habeas hearing that the toxicology lab was also contaminated with toluene and that the samples taken from Bill Richardson's clothing may have been contaminated with xylene and toluene in either the morgue or the toxicology lab.

- e) Castorena testified that he had been aware of the contamination even before the 1991 testing, but he continued to test the clothing despite the contamination (in this case and in at least ten other arson investigations).
- f) Castorena admitted that he did not tell anyone about the contamination until 2010, and the only other person who Castorena said knew of the contamination was Robert Rodriguez, another toxicologist assisting him. Castorena repeatedly stated his reason for not telling anyone of the contamination was that “nobody asked [him].”
- g) Castorena testified that the other experts interpreted the test results as being negative rather than positive *because* of the contamination. Castorena testified that the contamination produced a “false negative.” From that, Castorena hypothesized that the contamination-induced false negative necessarily supported his finding that the clothing was positive for an accelerant.
- h) Castorena also testified that he was unaware that, at the time of his testing, there were new guidelines for arson analysis.
- i) This court finds that Castorena’s analysis of the data from the testing of Bill Richardson’s clothing remnants was incorrect. He used poor testing techniques and did not account for the fact that there were other household materials and plastics (not gasoline) containing petroleum products that came in contact with Bill Richardson’s clothing.
- j) Since the trial, ten experts have examined the evidence in this case and concluded through sworn affidavits that there was no accelerant present on Bill Richardson’s clothing. This court finds these experts to be **credible**.
- k) In 2013 the findings of the Scientific Advisory Workgroup of the State Fire Marshal’s Office opined that the clothing samples from Bill Richardson did not reflect the presence of an accelerant. This court believes such findings to be **credible**.
- l) Also in 2013, an independent expert (Dr. Elizabeth Buc) hired by the Pecos County District Attorney’s office, in anticipation of the writ hearing, likewise concluded that there was no presence of an accelerant. This was turned over to the defense as Brady evidence because it was favorable to the Applicant. As a result, although hired by the State, the prosecutors elected not to call her at the habeas hearing as a witness. This court finds Dr. Buc to be **credible**.

- m) When Castorena testified at Applicant's habeas hearing in 2014, he had been retired from the Bexar County Forensic Lab since 2008. He admitted that he had quit analyzing arson cases in the mid 1990's. His training in arson was acquired on the job.
- n) Yet, Castorena insisted at the habeas hearing that his opinion regarding the presence of an accelerant is correct now and was correct at the trial, and all of these other experts (with national and international reputations, educations, and training, with PhD's, and with extensive arson investigation experience), are incorrect.
- o) This court finds that Castorena's trial testimony, that Bill Richardson's clothing tested positive for an accelerant, was **not credible**.
- p) This court finds that Castorena's testimony at the habeas hearing, defending his analysis of the testing of Bill Richardson's clothing despite the contamination, was **not credible**.
- q) Applicant provided this court with an affidavit from Dr. Larry Ytuarte, dated August 24, 2012, in support of her writ application.
  - i. Dr. Ytuarte stated that he worked as a forensic toxicologist with Joe Castorena at the Bexar County Forensic Science Center from September of 1990 to September of 1994.
  - ii. Although Dr. Ytuarte did not work on Applicant's case, he observed that Castorena falsified the evidence receipt form related to Bill Richardson's clothing remnants; he observed that Robert Rodriguez, **not Castorena**, tested the clothing remnants for accelerants; and he observed that the result of Rodriguez's testing was "none detected," meaning no accelerant was found.
  - iii. Dr. Ytuarte was fired from the Bexar County Crime Lab for complaining of such questionable practices involved in this case and other cases. He filed a whistleblower lawsuit, which was settled in July of 1997. Dr. Ytuarte stated that he was not bound by any conditions of nondisclosure in his settlement.
  - iv. Given these facts, and given that Dr. Ytuarte's observations regarding the lack of an accelerant were consistent with all of the other expert opinions discussed herein, this Court places great weight on his credibility via the affidavit.
- r) This court finds Dr. Ytuarte **credible**.
- s) This court finds that Joe Castorena's conclusion, that an accelerant was present on Bill Richardson's clothing remnants, gave the jury a false impression and materially affected the judgment of the jury.



- t) The court finds that Joe Castorena's admission that there was contamination at the morgue and toxicology lab constitutes newly discovered evidence.
- u) The court finds that the information provided by Dr. Ytuarte regarding his claims of misconduct by Castorena constitutes newly discovered evidence.
- v) The court finds that the 2013 State Fire Marshal's Office report constitutes newly discovered evidence.

### **Applicant's Claims of Ineffective Assistance of Counsel**

- a) Applicant was charged with murder. The alleged murder weapon was fire. The determination of whether arson occurred involves highly technical scientific analysis. Yet, Applicant's defense counsel at her 1993 trial, Tony Chavez, failed to consult with or hire an expert to testify as to the cause of the fire, even though the State designated four arson experts that would testify for the State.
- b) Instead, one week prior to Applicant's trial, Chavez hired Donald Dangerfield, the Odessa Fire Captain, to examine the scene of the fire. This was over a year after the fire occurred (making the examination of the fire scene seemingly worthless). Dangerfield was also Chavez's only "expert" witness at trial, called to rebut the State's theory of arson. This court finds that Chavez's "strategic" reason for hiring Dangerfield (to present testimony in layman's terms) was not a reasonable trial strategy.
- c) Chavez did not seek expert assistance to investigate and/or rebut Joe Castorena's claim that an accelerant was found on Bill Richardson's clothing remnants, even though that was the most damaging evidence presented by the State. Several reliable experts (both nationally and internationally educated and trained), who have since come forward and filed affidavits on Applicant's behalf denouncing the validity of the State's case, were available to testify in 1993. While this may undercut Applicant's theory that the exonerating evidence is "new," it supports her claims of ineffective assistance, false testimony, and actual innocence.
- d) Chavez did not hire a medical expert to investigate and/or rebut the testimony of the State's medical examiner, Dr. Bux, who testified that the death was a homicide caused by thermal burns, even though there was evidence available to support the cause of death being heart disease.
- e) Chavez's testimony at the habeas hearing did not persuade this court that his performance was not deficient. No reasonable trial strategy supports the decisions Chavez made in defending Applicant in her 1993 trial. Moreover, but for his deficient

performance, this court believes that the outcome of the proceedings would have been different. This court finds, therefore, that Applicant's 1993 trial counsel was ineffective.

### **Applicant's Claims of a Brady Violation**

- a) Joe Castorena knew in 1991 that the morgue and toxicology lab were contaminated during the time that he tested the clothing remnants of Bill Richardson for the presence of an accelerant.
- b) The fact of this contamination was exculpatory evidence.
- c) This evidence was never disclosed to the Applicant.
- d) This court finds that Joe Castorena was a member of the prosecution team because his conclusions provided the basis for the State's charge against Applicant, and provided the foundation of the prosecution's theory of the case.
  - i. Bexar County Medical Examiner Dr. Robert Bux relied in part on Joe Castorena's finding of accelerant on the victim's clothing to determine that the cause of death was a homicide (thermal burns).
  - ii. Moreover, Fire Investigator Steve Kenley based his determination that arson was the cause of the fire in part on Dr. Bux's conclusion that the death was a homicide.
  - iii. These conclusions were the basis for the State's decision to charge Sonia Cacy with the murder of Bill Richardson.
- e) This court finds that Castorena had an obligation to reveal the contamination. His failure to do so constituted a Brady violation.

### **Applicant's Claim of Actual Innocence**

- a) The cumulation of evidence supports Applicant's claim of actual innocence.
- b) This is a case of first impression regarding new arson evidence interwoven with ineffective assistance, false evidence, and Brady violations.
- c) This court finds that Applicant makes a compelling case for actual innocence, given the overwhelming evidence (including numerous affidavits) submitted that contradicts Joe Castorena's testimony at trial and his testimony at the habeas hearing.

### **The State's Theory of Laches Does Not Apply**

- a) Applicant's conviction was final in 1998. She was paroled that same year.
- b) Several experts provided affidavits that were submitted to the Board of Pardons and Paroles suggesting that:

- i. Bill Richardson died of a heart attack, not thermal burns.
  - ii. There was no presence of gasoline or any other accelerant.
  - iii. The mattress on the cot where the fire apparently started was made of polyurethane foam that would have burned rapidly and would have caused a degree of burning that looked similar to that of an accelerant.
- c) Dateline NBC initiated an investigation of Applicant's case in November of 1998.
- d) By late 2001, Applicant's case (and her claim of innocence) was being reviewed by experts and defense attorneys.
- e) In 2010, Applicant's defense team had evidently amassed enough material to support her claim for relief. They filed a complaint on her behalf with the Texas Forensic Science Commission on September 27, 2010, asserting that both the Bexar County Medical Examiner and Forensic Science Center misinterpreted the scientific data from the fire. In the complaint they included affidavits from ten national and international independent experts concluding, among other things, that there could not have been gasoline on Bill Richardson's clothing.
- f) In 2011, at the request of John Bradley (the presiding officer of the Forensic Science Commission), the Attorney General's office issued an opinion stating that the Texas Forensic Science Commission had no authority to investigate matters occurring prior to 2005. As a result, Applicant's complaint was given to the Scientific Advisory Workgroup of the State Fire Marshal's Office to handle.
- g) By 2012, Applicant's attorneys had prepared her application for writ of habeas corpus and filed it on November 2, 2012, with the trial court.
- h) Also in November of 2102, the incumbent District Attorney, Jesse Gonzalez, lost his election to Rod Ponton. Given the short time he had left in office, Gonzalez took no action on the case.
- i) In August of 2013, the Science Advisory Workgroup of the State Fire Marshal's Office completed its findings and sent them to the Pecos County District Attorney, Rod Ponton. Those findings were favorable to Applicant.
- j) In October of 2013, Rod Ponton sought an opinion from the Attorney General's Office regarding the authority of the State Fire Marshal's Office to investigate arson cases. This was clearly an attempt to prevent this court from considering that report as support for Applicant's claim for habeas relief. The Attorney General's opinion was issued on April

4, 2014. It was favorable to Applicant, and found that the State Fire Marshal's Office had authority to investigate closed arson cases.

k) The undersigned presided over the habeas hearing beginning in late June of 2014.

l) Under the circumstances as outlined above, this court finds that the State's claim of laches lacks merit.

## **FINDINGS OF FACT**

### **2 Background**

#### **2.1 Procedural History**

##### **2.1.1 1993 Trial on Guilt Innocence**

2.1.1.1 Applicant, Sonia Cacy, was tried and convicted by a jury of the murder of her uncle, William Roscoe Richardson (the victim will be referred to as “Bill Richardson” throughout these findings), under cause number 2037 in the 83rd Judicial District Court of Pecos County, Texas on February 26, 1993. The Honorable Alex Gonzalez presided over the case. The jury sentenced Cacy to 55 years in prison.

2.1.1.1.1 The indictment charged Sonia Cacy with murder of her uncle, Bill Richardson, by setting him on fire: “Sonia Cacy, . . . did then and there intentionally and knowingly cause the death of an individual, William R. Richardson, by burning the said individual with fire.”

2.1.1.2 Sonia Cacy filed a direct appeal of her 1993 sentence. On May 11, 1995, the Eighth District Court of Appeals in El Paso upheld the conviction, but remanded the case to the trial court for a new punishment trial.

2.1.1.3 On September 13, 1995, the Sonia Cacy’s Petition for Discretionary Review was refused by the Texas Court of Criminal Appeals.

##### **2.1.2 1996 Retrial on Punishment Only**

2.1.2.1 Sonia Cacy’s new punishment trial was held before the 83rd District Court with the Honorable Alex Gonzalez presiding. On April 19, 1996 Sonia Cacy was sentenced by a new jury to 99 years in prison.

2.1.2.2 On May 19, 1998, the Eighth District Court of Appeals upheld the second judgment of sentence. Sonia Cacy did not file a petition for discretionary review with the Texas Court of Criminal Appeals.

##### **2.1.3 Post-Conviction Proceedings**

2.1.3.1 On July 4, 1998, Sonia Cacy made a request for parole and on November 23, 1998 the Texas Board of Pardons and Paroles released Cacy on parole. Sonia Cacy filed many of the same affidavits and experts as she did in this Application filed over 14 years later.

2.1.3.2 On September 27, 2010, Sonia Cacy, through her attorneys at the Innocence Project of Texas, filed a complaint with the Texas Forensic Science Commission. *See EXHIBIT A: LETTER TO THE TEXAS FORENSIC SCIENCE COMMISSION.* In their letter to the Commission, Cacy’s attorneys stated: “We recognize that the mandate of the Forensic Science Commission is not to determine innocence or guilt and we are not asking you to do so in this case. Rather, we are asking the Commission to review the scientific testimony used to convict Ms. Cacy and determine if it was the result of professional negligence or misconduct.”

2.1.3.3 On July 29, 2011, Attorney General Greg Abbott issued an opinion on the authority of the Texas Forensic Science Commission to investigate cases. *Tex. Att’y Gen. Op. No. GA-0866 (2011)* available at

[https://texasattorneygeneral.gov/opinions/opinions/50abbott/op/2011/h/tm/ga-o866.htm#N\\_1](https://texasattorneygeneral.gov/opinions/opinions/50abbott/op/2011/h/tm/ga-o866.htm#N_1). This opinion was issued in response to a request by John Bradley, the former District Attorney of Williamson County who was appointed by then-governor, Rick Perry, as presiding officer of the Commission. The request letter is no longer available on the current Attorney General's website. Tex. Att'y Gen. Rq. No. RQ-0943-GA (2011) *formerly* *available* *at* <https://texasattorneygeneral.gov/opinions/opinions/50abbott/rq/2011/p/df/rq0943GA.pdf>. The Attorney General's opinion was that the Commission had no authority to investigate evidence presented in any case prior to 2005 when the Commission was formed by legislative enactment. As a result of the Attorney General's opinion, Sonia Cacy's complaint was dismissed. *See* Applicant's Response to State's Laches Argument, p. 2.

- 2.1.3.4 Sonia Cacy filed an initial application for writ of habeas corpus pursuant to Article 11.07 of the Texas Code Criminal Procedure in the 83rd District Court in the above-numbered cause on November 2, 2012. She also filed a Memorandum in Support of Application for a Writ of Habeas Corpus. Among the numerous exhibits in support of her habeas application was the Affidavit of Dr. Larry Ytuarte, a forensic toxicologist who worked at the Bexar County Forensic Science Center from 1990-1994. *See* EXHIBIT B: AFFIDAVIT OF DR. LARRY YTUARTE.
- 2.1.3.5 Presiding Judge of the 6<sup>th</sup> Administrative Judicial Region, the Honorable Stephen Ables, appointed the undersigned Judge Bert Richardson (no relation to the victim, Bill Richardson), to preside over the habeas proceedings in Cause Number P-2037-B-83-CR, styled Writ No. 2037-B, Ex parte Sonia Cacy, by order signed on April 8, 2013.
- 2.1.3.6 Sonia Cacy's habeas evidentiary hearing was set for August 12, 2013.
- 2.1.3.7 The 83<sup>rd</sup> District Attorney's Office filed State's Unopposed Motion for Continuance for Good Cause Shown on July 23, 2013.
- 2.1.3.8 On August 20, 2013 the State Fire Marshal's Office issued a letter to the 83<sup>rd</sup> District Attorney's Office advising the District Attorney of its Science Advisory Workgroup's report on the evidence in Sonia Cacy's arson case. *See* EXHIBIT C: STATE FIRE MARSHAL'S OFFICE LETTERS.
- 2.1.3.9 Sonia Cacy later amended her Original Application and on September 12, 2013, she filed a Memorandum in Support of Amended Application for a Writ of Habeas Corpus.
- 2.1.3.10 On October 1, 2013, the 83<sup>rd</sup> District Attorney's Office filed Request for Opinion from the Office of the Attorney General Regarding the Authority of the Science Advisory Workgroup of the State Fire Marshal's Office. On October 10, 2013 the 83<sup>rd</sup> District Attorney's Office filed Supplemental Request for Opinion from the Office of the Attorney General Regarding the Authority of the Science Advisory Workgroup of the State Fire Marshal's Office.
- 2.1.3.11 The 83<sup>rd</sup> District Attorney's Office filed State's Motion for Pre-Hearing Ruling upon the Standard of Proof as a Matter of Law and State's Motion

- for Exclusion of Applicant's Alleged Newly Discovered Evidence on March 5, 2014.
- 2.1.3.12 On March 11, 2014 Sonia Cacy's habeas evidentiary hearing was set for April 7, 2014.
  - 2.1.3.13 On March 14, 2014 Sonia Cacy filed Motion for Discovery of Exculpatory Evidence and Applications for Subpoenas Duces Tecum for Joe Castorena, Timothy Fallon, and Adrian Antonio "Tony" Chavez.
  - 2.1.3.14 On March 25, 2014, Sonia Cacy submitted a new application for a writ of habeas corpus seeking relief under Article 11.07. On May 8, 2014, Sonia Cacy submitted another Amended Application for a Writ of Habeas Corpus seeking Relief under Article 11.07.
  - 2.1.3.15 On March 25, 2014, Sonia Cacy also filed Motion to Require State to Reveal Any Promises of Immunity or Other Deals with Witnesses.
  - 2.1.3.16 On March 31, 2014 the affidavit of Joe Castorena, the forensic toxicologist from Bexar County Forensic Science Center who made a positive finding of accelerant in his report on the evidence in Sonia Cacy's case in 1991, was filed. In his affidavit, Castorena disputes the allegations made by Dr. Larry Ytuarte.
  - 2.1.3.17 On March 31, 2014 the 83<sup>rd</sup> District Attorney's Office filed State's Supplemental Motion for Exclusion of Applicant's Alleged Newly Discovered Evidence and State's First Memorandum Showing this is a Circumstantial Case, Not a Scientific Evidence Case.
  - 2.1.3.18 On April 2, 2014 Sonia Cacy filed Applicant's Response to State's Pre-Hearing Motions.
  - 2.1.3.19 On April 4, 2014 the 83<sup>rd</sup> District Attorney's Office filed State's Sur-Reply to Applicant's Response to State's Pre-Hearing Motions.
  - 2.1.3.20 On April 4, 2014 the Attorney General issued an opinion in response to the 83<sup>rd</sup> District Attorney's Office's request for an opinion on the authority of the Science Advisory Workgroup of the State Fire Marshal's Office. Tex. Att'y Gen. Op. No. GA-1048 (2014). The Attorney General stated that the Workgroup had the authority to investigate closed arson cases. *See* EXHIBIT D: ATT'Y GEN. OPINION GA-1048.
  - 2.1.3.21 On April 11, 2014 Sonia Cacy filed Applicant's Memorandum Regarding Issues on Application for Writ of Habeas Corpus. This memorandum addressed the State's contention that the case was about circumstantial evidence not scientific evidence.
  - 2.1.3.22 On April 14, 2014 Sonia Cacy filed Applicant's Response to State's Claims Concerning Circumstantial Evidence.
  - 2.1.3.23 On April 28, 2014 Sonia Cacy filed Applicant's Supplemental Response to State's Claims Concerning Circumstantial Evidence.
  - 2.1.3.24 On May 5, 2014 the 83<sup>rd</sup> District Attorney's Office filed Sonia Cacy is Not Factually or Legally Innocent.
  - 2.1.3.25 On May 8, 2014 Sonia Cacy filed another amended application for writ of habeas corpus.

- 2.1.3.26 On May 13, 2014 the 83<sup>rd</sup> District Attorney's Office filed Motion to Transmit the Original, March 25, 2014 Application to the Court of Criminal Appeals Because No Questions of Fact Were Designated; And to Strike the Amended Application as Untimely.
- 2.1.3.27 On May 21, 2014 Judge Bert Richardson ruled on the 83<sup>rd</sup> District Attorney's Office's Motion to Transmit the Original, March 25, 2014 Application to the Court of Criminal Appeals Because No Questions of Fact Were Designated; And to Strike the Amended Application as Untimely. Judge Richardson denied the motion. Judge Richardson also ordered that the evidentiary hearing take place on June 30, 2014.
- 2.1.3.28 On May 29, 2014 Sonia Cacy filed Applicant's Response to State's Motion to Transmit Application to the Court of Criminal Appeals.
- 2.1.3.29 On June 27, 2014 the 83<sup>rd</sup> District Attorney's Office filed Motion to Dismiss with Prejudice Applicant's Writ Application Upon the Basis of Laches and Memorandum Regarding Admissibility of Juror Statements.
- 2.1.3.30 On June 27, 2014 Sonia Cacy filed another amended application for writ of habeas corpus.
- 2.1.3.31 An evidentiary hearing concerning the writ of habeas corpus application filed by Sonia Cacy was conducted by the 83<sup>rd</sup> District Court in Pecos County, over which the undersigned visiting senior judge, Bert Richardson, presided, on June 30 and July 1, 2014.
- 2.1.3.32 On July 9, 2014 Sonia Cacy filed Applicant's Response to State's Laches Argument.
- 2.1.3.33 Sonia Cacy filed her last amended application for writ of habeas corpus on July 9, 2014. This final amended application incorporates information provided by the State by way of affidavits before the hearing, as well as evidence presented at the hearing. This final amended application is the application being considered and addressed by this court.
- 2.1.3.34 On July 9, 2014 Sonia Cacy filed Post-Hearing Memorandum in Support of Amended Application for a Writ of Habeas Corpus.
- 2.1.3.35 The undersigned Judge Bert Richardson sitting by assignment in the 83<sup>rd</sup> District Court, heard and considered this writ of habeas application from the beginning of habeas proceedings in this case.

## **2.2 Issues Presented in Application for Writ of Habeas Corpus**

Sonia Cacy, the Applicant, raised the following issues which all relate to her finding of guilt at the first trial of her case. These issues are:

- 2.2.1 "Newly discovered and newly available evidence shows that applicant is actually innocent."
- 2.2.2 "The presentation of false testimony at Applicant's trial violated her right to due process of law."
- 2.2.3 "Applicant received ineffective assistance of counsel at [her 1993] trial."



- 2.2.4 “There is new relevant scientific evidence that was not available to be offered by Applicant at her trial and the new scientific evidence contradicts evidence relied on by the state at trial.”
- 2.2.5 “The State suppressed exculpatory evidence.”

## **2.3 Applicant’s Personal History**

### **2.3.1 Sonia Cacy’s Family**

- 2.3.1.1 Sonia Cacy was Bill Richardson’s niece and stepdaughter. Cacy’s biological father was Richardson’s brother. After Cacy’s father’s death, Richardson married Cacy’s mother. 1996-04-18 Morning Session RR p.10.
- 2.3.1.2 Sonia Cacy grew up in Fort Stockton. Bill Richardson, Cacy’s parents, and Cacy’s grandparents all lived in Fort Stockton when she was growing up. Cacy’s parents, Buster and Zaley Richardson, had a lot of personal problems so Cacy would stay with Richardson. When Cacy was in her teens her parents moved to San Saba where Cacy attended high school. Cacy’s parents divorced when Cacy was still in high school, so Cacy moved to Fort Worth with her mother. 1996-04-18 RR Morning Session p.13-18.
- 2.3.1.3 Cacy got pregnant her senior year of high school, so she dropped out of school and got married. Cacy had two sons with her first husband before she divorced him. Then Cacy met her current husband Billy Cacy, and married him in 1967. Billy Cacy adopted Cacy’s two sons. Sonia and Billy Cacy had one daughter, Gena, together in 1970. 1996-04-18 RR Morning Session p.13-18.
- 2.3.1.4 Sonia and Billy Cacy moved from Fort Worth to near Imperial which is closer to Fort Stockton in the 1970s. Sonia, Billy, and the three kids moved in with Bill Richardson and shared his oil lease building near Imperial. Sonia Cacy’s mother Zaley, who had been living with the Cacys, also moved in to the oil lease building. Zaley and Buster Richardson reunited and moved to a different house on the oil lease. The Cacys then bought a house in Imperial in the late 1970s and lived there until 1983, while Bill Richardson stayed in the oil lease building. 1996-04-18 RR Morning Session p.13-18.
- 2.3.1.5 Sonia Cacy did the bookkeeping for her family’s oil leases in the 1970s, including Bill Richardson’s leases. Sonia Cacy testified that her father and Bill Richardson never made a lot of money because of the loans they took out to purchase the oil leases. 1996-04-18RR Morning Session p.18-19. Cacy testified that most of the oil leases were sold by 1980. 1996-04-18 RR Morning Session p.20.
- 2.3.1.6 Around 1980 Buster and Zaley Richardson, Cacy’s parents, moved to Ruidoso, New Mexico, but, shortly after moving, Buster Richardson was killed in a car wreck so Bill Richardson went to Ruidoso and brought Zaley Richardson back to live with Sonia Cacy’s family. 1996-04-18 RR Morning Session p.20. Around 1981 or 1982 Bill Richardson had to have his kidney removed, so Richardson also moved in with the Cacys so that Sonia could care for him. 1996-04-18RR Morning Session p.21-22. Zaley Richardson and Bill Richardson then decided to get married and moved into a house

on Oklahoma Street in Fort Stockton. 1996-04-18 RR Morning Session p.23.

- 2.3.1.7 Sonia and Billy Cacy got a divorce in the mid 1980s. Bill Richardson had given Sonia's mother Zaley the Oklahoma Street house in Fort Stockton so after the divorce Sonia moved into her mother's house. The Oklahoma Street house was later sold to Sonia Cacy's son. Bill Richardson and Sonia's mother bought another house at 1803 North Young Street in Fort Stockton. The North Young house is the house that Bill Richardson lived in until he died. 1996-04-18 RR Morning Session p.23-24.
- 2.3.1.8 Sonia Cacy and her youngest child, Gena Cacy, move in with Bill Richardson after Cacy's mother died around 1986. 1996-04-18 RR Morning Session p.30.
- 2.3.1.9 At some point Sonia Cacy and her daughter moved into an apartment complex in Fort Stockton that Cacy managed.
- 2.3.1.10 When Sonia Cacy's 17-year-old son got a girl pregnant, Sonia took the girl into her home until the baby was born, and mother and baby could join her son at his school in Florida. 1996-04-18 RR Morning Session p.25-26.
- 2.3.1.11 Sonia Cacy testified that she moved in with Bill Richardson and her teenage daughter in 1986 and lived with Richardson until his death in 1991 except for short periods when she went to take care of other family members. 1996-04-18 RR Morning Session p. 30.
- 2.3.1.12 Sonia Cacy testified that from 1987 to 1991 she went back and forth from Fort Stockton to Denver and then later to Dallas to care for her husband, Billy Cacy, who had a series of heart attacks. 1996-04-18RR Morning Session p.31-33.
- 2.3.1.13 Sonia Cacy remarried Billy Cacy in June of 1989. 1996-04-18 RR Morning Session p.32.

## **2.3.2 Events surrounding November 10, 1991 Fire**

- 2.3.2.1 Sonia Cacy testified that in July of 1991 she went to Houston to care for her oldest son who had been severely injured in an accident, but returned to Fort Stockton in September of 1991. 1996-04-18 RR Morning Session p.33-34.
- 2.3.2.2 Sonia Cacy testified that she returned to Fort Stockton in September 1991 to help Bill Richardson get through cataract surgery. 1996-04-18 RR Morning Session p.35.
- 2.3.2.3 Prior to the November 10, 1991 fire that killed Bill Richardson, Bill Richardson and Sonia Cacy reported two fires on November 2, 1991, one in the office of the house which occurred around 3:17 a.m. and another later that morning in the shed behind the house. The two fires on November 2<sup>nd</sup> occurred within a short period of time from each other. The fire department was called to put out both fires and an investigation into the causes of the fires was pending. Cacy and Richardson told investigators that they believed someone had intentionally set the fires.

### **2.3.3 The Fire of November 10, 1991**

- 2.3.3.1 On November 10, 1991 the Fort Stockton police and fire departments responded at approximately 6:30 a.m. to a house fire at 1803 North Young Street, Fort Stockton, Texas. 1993-02-23 RR p.85.
- 2.3.3.2 The first emergency responder to arrive at the scene of the fire was Police Officer Robert Kurtis. 1993-02-23 RR p.86.
- 2.3.3.3 Officer Robert Kurtis heard over the police dispatch that there was possibly a male inside the house and also observed two women outside the burning house, one of whom (later known to him as Sonia Cacy) was yelling about her uncle being inside the house. 1993-02-23 RR p.87.
- 2.3.3.4 Officer Robert Kurtis attempted to enter the burning house by kicking in the front door and crawling below the voluminous smoke which billowed out of the door, but Officer Kurtis was interrupted in his attempt by Sonia Cacy, who also tried to enter the house. 1993-02-23 RR p.89-90.
- 2.3.3.5 Officer Robert Kurtis twice had to restrain Sonia Cacy from trying to enter the burning house. 1993-02-23 RR p.91.
- 2.3.3.6 The second time Officer Robert Kurtis had to restrain Sonia Cacy, he escorted her into the house of a neighbor, Dois Clawson, and left her in the care of the neighbor. 1993-02-23 RR p.92.
- 2.3.3.7 Police Officer Armando Villesca and Corporal Rick Carreon arrived at the scene of the fire shortly after Officer Robert Kurtis and they also both attempted to enter the burning house. 1993-02-23 RR p.120.
- 2.3.3.8 Corporal Rick Carreon attempted to douse the fire with water from the water hose attached to the house. 1993-02-23 RR p.230.
- 2.3.3.9 Police Officers Armando Villesca & Rick Carreon found the body of Bill Richardson in the southeast corner of the living room and decided the body was unresponsive and beyond treatment. The two retreated back outside of the house due to the intense smoke. 1993-02-23 RR p.126.
- 2.3.3.10 Fort Stockton Fire Chief Jimmy Jackson ordered firefighters to use a mist to put out the fire in the house because a body was present and he didn't want to disturb the scene. 1993-02-23 RR p.177.
- 2.3.3.11 Sonia Cacy was taken to the hospital in a police vehicle by Crisis Intervention Specialist Betsey Spencer on the orders of the Fort Stockton Assistant Police Chief. Corporal Rick Carreon testified that Cacy was ordered to the hospital because of her hysterical behavior. 1993-02-23 RR p.236-37.
- 2.3.3.12 Bill Richardson's body was autopsied by Bexar County Deputy Chief Medical Examiner Dr. Richard Bux. Dr. Bux determined the cause of death to be thermal burns. 1993-02-24 RR p. 178.

### **3 1993 Trial on Guilt/Innocence & Punishment**

#### **3.1 State's Case in Chief**

##### **3.1.1 State's Witnesses**

- 3.1.1.1 Bill Richardson's neighbor, Dois Clawson
- 3.1.1.2 Bill Richardson's neighbor, Jose Dominguez
- 3.1.1.3 City of Fort Stockton Police Officer, Robert Curtis
- 3.1.1.4 Former Fort Stockton Police Officer, Armando Villesca
- 3.1.1.5 Fort Stockton Fire Chief, Jimmy Jackson
- 3.1.1.6 Fort Stockton Assistant Fire Chief, Don Maxey
- 3.1.1.7 Fort Stockton Fireman, Tony Lannom
- 3.1.1.8 City of Fort Stockton Police Sergeant, Ricardo Carron
- 3.1.1.9 Crisis Intervention Program Coordinator, Betsey Spencer
- 3.1.1.10 Fort Stockton Hospital Licensed Vocational Nurse, Regina Parish
- 3.1.1.11 Office Manager for Fort Stockton Emergency Room Physician Sheri Talley, Ramona Saavedra
- 3.1.1.12 Fort Stockton Fire Marshal, Frank Salvato
- 3.1.1.13 Fort Stockton Hospital Radiologist, Dr. John Young
- 3.1.1.14 Bexar County Deputy Chief Medical Examiner, Dr. Robert Bux
- 3.1.1.15 Bexar County Assistant Chief Toxicologist, Joe Castorena
- 3.1.1.16 Bexar County Chief Forensic Serologist, Fred Zain
- 3.1.1.17 Bexar County Forensic Document Examiner, Marvin Morgan
- 3.1.1.18 AID Consulting Engineers Fire Investigation Consultant, Gary Gilmore
- 3.1.1.19 Pecos County Deputy Sheriff, Sam Esparza
- 3.1.1.20 Fort Stockton Police Department Investigator, Jerry Joplin
- 3.1.1.21 Crockett County Fire Marshal & 112th District Attorney's Office Investigator, Steve Kenley
- 3.1.1.22 Odessa Arson Investigator, John Taylor (called on Rebuttal)

##### **3.1.2 Summary of State's Theory of Prosecution**

- 3.1.2.1 The State's theory of prosecution was that Sonia Cacy poured gasoline, or some other accelerant on Bill Richardson and set him on fire, causing his death. Both the opening statement and closing argument by the State stated this theory of prosecution. Opening Statement, 1993-02-23 RR p. 6-7; Closing Argument, 1993-02-26 RR p. 12, 52, 53, 61.
- 3.1.2.2 The State emphasized the role of circumstantial evidence in a criminal trial when speaking to the venire panel during voir dire. The State compared hypothetical direct evidence of three eyewitnesses who might give different accounts about the driver of a car and hypothetical circumstantial

evidence of fingerprints on the car's steering wheel analyzed by a fingerprint analyst. The State asked the venire panel, "Can you see where circumstantial evidence is stronger in that example than eyewitness testimony?" The State was preparing potential witnesses to put more weight on circumstantial evidence. 1993-02-22 RR p. 22.

3.1.3 Prosecution's Evidence #1: Sonia Cacy's behavior was inconsistent with that of an innocent person.

3.1.3.1 Sonia Cacy was drunk because she needed liquid courage to murder her uncle.

3.1.3.1.1 The State in its opening statement characterized Sonia Cacy as drunk at 6:30 a.m. saying that Cacy "smelled highly of alcohol. She reeked of liquor . . ." 1993-02-23 RR p.6. The State claimed that the nurses who examined Cacy at the hospital would testify that Cacy was intoxicated. 1993-02-23 RR p.6. The nurses in fact did not testify to Cacy's intoxication. 1993-02-24 RR p.63-91. The State asked every one of its witnesses who had contact with Sonia Cacy at the scene of the fire if he or she had observed the smell of alcohol on Sonia Cacy's person. Dois Clawson, the neighbor who was with Cacy when first responders arrived at the fire, testified that she had not observed any alcohol smell. 1993-02-23 RR p.42. Police Officer Robert Kurtis testified that he did not notice any alcohol smell on Sonia Cacy. 1993-02-23 RR p.107. Police Officer Armando Villesca testified that he noticed the smell of alcohol on Cacy's breath. 1993-02-23 RR p.130. Police Officer Rick Carreon testified that he also noticed the smell of alcohol on Cacy. 1993-02-23 RR p.233. Police Crisis Intervention Specialist Betsey Spencer testified that she noticed the "unusual" smell of alcohol on Cacy's breath. 1993-02-24 RR p.23. Sonia Cacy's friend, Loretta Scott, who arrived around 8:00 a.m. at the hospital to comfort Cacy testified that she did not smell alcohol on Cacy. 1993-02-25 RR p.169. In its closing statement, the State claimed that Dr. Sheri Talley's medical records indicate that Sonia Cacy had alcohol on her breath. 1993-02-26 RR p.62. There was no court examination of Dr. Sheri Talley or the sponsoring witness for the medical records, Office Manager Ramona Saavedra, by the State or the Defense regarding the record notations indicating the presence of alcohol. 1993-02-24 RR p.94-101. The State speculated in closing: "Why would she [Sonia Cacy] be drinking liquor at that time of the morning except to build up enough courage to go in there and kill the man that loved her?" 1993-02-26 RR p.62.

3.1.3.2 Sonia Cacy was belligerent with law enforcement and actually impeded any attempts at rescuing Bill Richardson.

3.1.3.2.1 Officer Robert Kurtis described Sonia Cacy's behavior at the scene of the fire as "uncooperative" and when asked to describe how she was uncooperative he responded, "Well, she was scratching, trying to get back into the house and, like I said, she was highly emotional,

- crying, and just struggling, trying to break loose.” 1993-02-23 RR p.96.
- 3.1.3.2.2 Police Officer Armando Villesca testified that Sonia Cacy struck Crisis Intervention Specialist, Betsey Spencer, in the stomach, used profanity during her interactions with the police, and that her breath had the smell of alcohol. 1993-02-23 RR p.129-130. Betsey Spencer corroborated the testimony of Officer Villesca by confirming that Sonia Cacy was struggling and that Cacy punched her in the stomach. 1993-02-24 RR p.24. Spencer also confirmed that Cacy was using profanity during her interactions with police. 1993-02-24 RR p.26.
- 3.1.3.2.3 Police Corporal Rick Carreon testified that he tried to get a written statement from Sonia Cacy after she was taken to the hospital but “[s]he said she wasn’t giving us a fucking thing until she spoke to her attorney.” 1993-02-23 RR p.239. Betsey Spencer also testified that Sonia Cacy refused to have her picture taken by police at the hospital, and Cacy responded, “I’m not going to do shit without my attorney.” 1993-02-24 RR p.30. Betsey Spencer testified that Sonia Cacy also refused a blood test by saying, “Hell no, not without my attorney.”
- 3.1.3.2.4 Police Officer Armando Villesca testified that at the scene of the fire he put Sonia Cacy in the back of a patrol car for her own safety.
- 3.1.3.2.5 Corporal Rick Carreon testified that he asked for Officer Armando Villesca’s assistance in putting Sonia Cacy in the back of a patrol car in order to keep Cacy from “getting in the way of the fire department and the rest of the PD that was there.” 1993-02-23 RR p.234.
- 3.1.3.2.6 Fort Stockton Fire Chief Jimmy Jackson testified that he advised Officer Kurtis to restrain Sonia Cacy and put her in the back of his squad car to keep her out of the way of first-responders and for her own protection. 1993-02-23 RR p.175.
- 3.1.4 Prosecution’s Evidence #2: Sonia Cacy’s singed hair was evidence of direct contact with flames & contradicted her story that she had no contact with fire in living room.
- 3.1.4.1 The State asked each State’s witness who had contact with the burning house if his hair had been singed. Police Officer Robert Kurtis testified that even though he was able to get half of his body through the front entrance to the house his hair was not singed. 1993-02-23 RR p. 92. Officer Armando Villesca also testified that he was able to partially enter the house but that he did not have singed hair. 1993-02-23 RR p. 136. Officer Rick Carreon, who entered the house at approximately the same time as Officer Villesca also reported that his hair was not singed and confirmed that Officer Villesca had no singed hair. 1993-02-23 RR p. 240-41.
- 3.1.4.2 The State asked witnesses who had contact with Sonia Cacy about Cacy’s physical appearance. Dois Clawson, a neighbor, after refreshing her memory with a previous written statement, testified that Sonia Cacy had

- singed hair in addition to traces of smoke on her face. 1993-02-23 RR p. 64. Crisis Intervention Specialist Betsey Spencer testified that she noticed that Sonia Cacy had singed hair and black under her lips. 1993-02-24 RR p.23. Nurse Kay McGee testified that she noticed Cacy's hair was singed. 1993-02-24 RR p.65, 69. Sonia Cacy's friend, Loretta Scott, who arrived around 8:00 a.m. at the hospital to comfort Cacy testified that she did not see any singed hair on Cacy. 1993-02-25 RR p.169.
- 3.1.4.3 Deputy Chief Medical Examiner Dr. Robert Bux, testified that for hair to singe with only indirect heat of a fire would require "hundreds and hundreds of degrees of temperature." 1993-02-24 RR p. 188. Dr. Bux testified that it takes direct contact with flame to singe hair if the heat is not "hundreds and hundreds of degrees." 1993-02-24 RR p. 189.
- 3.1.4.4 Crockett County Fire Marshal Steve Kenley, testified that he did not find "any evidence of enough heat in that northeast bedroom to have singed [Sonia Cacy's] hair." 1993-02-25 RR p. 74. Fire Marshal Kenley also testified that in his personal experience he had never known his own hair to singe unless he had been in direct contact with flame. 1993-02-25 RR p. 73-74.
- 3.1.4.5 On redirect examination, the State asked about the level of heat necessary for hair to singe. Deputy Chief Medical Examiner Dr. Robert Bux answered that "an extreme amount" of heat is necessary to singe hair. 1993-02-24 RR p. 188.
- 3.1.4.6 Crockett County Fire Marshal Steve Kenley testified that Sonia Cacy's hair could not have been singed except from direct contact with flame. 1993-02-25 RR p.74. Fire Marshal Kenley testified that there was not enough heat in the northeast bedroom to have singed Sonia Cacy's hair. 1993-02-25 RR p.74. He also testified that there would not have been enough fire coming out of the window she broke in one of her attempts to reenter the house nor enough fire near the front door she tried to reenter when the police came to have singed her hair. 1993-02-25 RR p.75-76 & 79.
- 3.1.4.7 Crockett County Fire Marshal Steve Kenley testified that he had been told Sonia Cacy had soot all over her body and that from his experience the way to get soot on the body was through contact with smoke. 1993-02-25 RR p.80. Fire Marshal Kenley observed that the northeast bedroom did not have a lot of smoke damage and "not enough to warrant the amount of smoke the – the Defendant had on her that morning." 1993-02-25 RR p.80. Fire Marshal Kenley testified that Sonia Cacy could not have gotten soot all over her clothes from just breaking the window or trying to enter the house through the front door. 1993-02-25 RR p.81-84.
- 3.1.4.8 In its closing statement, the State claimed that Sonia Cacy must have had direct contact with the flames in order to have had singed hair and that Sonia Cacy's story must be false because according to her story she never had direct contact with the fire. 1993-02-26 RR p.51.
- 3.1.4.9 Odessa Arson Investigator, John Taylor, brought in by the State to testify in rebuttal to the defense's arson witness, Captain Donald Dangerfield, testified that heat radiation would be enough to singe hair and that he had

- singed his own hair with heat from an oven but that same heat did not burn his skin. 1993-02-26 RR p.166-67.
- 3.1.4.10 Defense attorney, Tony Chavez, asked a beautician, Misty Verette, to perform some experiments on hair using a lighter prior to the trial and testify as to the results of those tests. Verette testified that when the lighter was held five to six inches away from hair for about six seconds the hair was scorched and rolled up but it didn't burn. Verette testified that she held the lighter eight inches away from the hair for eleven to twelve seconds and the hair looked more like split ends than burned. 1993-02-25 RR p.237.
- 3.1.4.11 Beautician Misty Verette saw Sonia Cacy at the hospital right after the fire and cut her hair a couple of days after Cacy was released from the hospital. 1993-02-25 RR p.237. Verette testified that based on the tests of fire on hair that she had performed, Sonia Cacy's hair looked similar to that of hair that was held between six to eight inches away—slightly scorched and like split ends. 1993-02-25 RR p.237.
- 3.1.4.12 Beautician Misty Verette has no scientific background or training. 1993-02-25 RR p.240-41.
- 3.1.4.13 Beautician Misty Verette testified that Sonia Cacy's hair was still singed and gummy when Cacy asked Verette to cut her hair. 1993-02-25 RR p.242. Verette testified that when she cut Cacy's hair in the motel room where Cacy was staying after she was released from the hospital; she did not keep any of the hair she cut but flushed it down the toilet. 1993-02-25 RR p.243.
- 3.1.5 Prosecution's Evidence #3: Bill Richardson died of thermal burns, which were caused by a fire started with accelerants.
- 3.1.5.1 In its opening statement, the State told the jury that it would hear evidence that Bill Richardson died of thermal burns and that 95% of his body had third-degree burns. The State claimed "his [Bill Richardson's] clothes, the remaining of his clothes, had accelerant, gasoline." 1993-02-23 RR p.6.
- 3.1.5.2 Fire Chief Jimmy Jackson testified that the aluminum cot in the living room had melted and that in order for aluminum to melt in the seven minutes it took between the time the fire was reported at 6:23 a.m. and the time the Chief arrived at 6:30 a.m., the fire would not have been a slow fire but it must have been a "very quick fire." 1993-02-23 RR p.209.
- 3.1.5.3 Fire Chief Jimmy Jackson testified that there was a hole in the sheet rock near the feet of Bill Richardson's body. 1993-02-23 RR p.183.
- 3.1.5.4 Fire Chief Jimmy Jackson testified that there was some kind of metallic material in Bill Richardson's right hand. 1993-02-23 RR p.185.
- 3.1.5.5 Deputy Chief Medical Examiner, Dr. Robert Bux, testified that "there is no question that [Bill Richardson] died of thermal burns and that that's the cause of death. There is a low level of carbon monoxide and soot in his mouth and nose indicate that he was alive at the time of the fire. The finding of homicide is based on the presence of the accelerant to some



degree, but more importantly, on the subsequent fire investigation.” 1993-02-24 RR p. 178.

- 3.1.5.6 When asked if the fire that killed Bill Richardson could have been started by a cigarette that caught the bed on fire, Deputy Chief Medical Examiner Dr. Robert Bux testified that the level of carbon monoxide would have been much higher and the burn pattern would have been much less extensive because, if that had been the case, the victim would’ve died from smoke inhalation and not the burn itself. 1993-02-24 RR p. 178-79.
- 3.1.5.7 Fort Stockton Fire Chief Jimmy Jackson testified that there was a hole in the ceiling of the front living room about two by eight or ten feet across through which smoke from the fire in the living room was able to flood into the attic and then go back down into other rooms. 1993-02-23 RR p.187-88.
- 3.1.5.8 Fort Stockton Fire Chief Jimmy Jackson testified that there was smoke damage in the northwest bedroom but very little smoke in the northeast bedroom. He also testified the there was heavy smoke damage in the kitchen but not in the living room. 1993-02-23 RR p.187.
- 3.1.5.9 Fort Stockton Fire Chief Jimmy Jackson testified that the door of the northeast bedroom had been open by about 3 inches because there were soot stains on the carpet and along the door which indicated how wide the door was open. 1993-02-23 RR p.190.
- 3.1.5.10 Crockett County Fire Marshal Steve Kenley testified that because the of the heat damage on the walls in the living room he determined that the fire must have burned very hot and not all of the intense heat could escape through the large vent in the living room ceiling so it banked back down the walls of the living room. 1993-02-25 RR p.58-59 & 60-61.
- 3.1.5.11 Crockett County Fire Marshal Steve Kenley testified that because there was more burning on some rafters in the attic, rather than even burning on the exposed rafters, something with a high heat source was indicated in that particular area. 1993-02-25 RR p.64-65.
- 3.1.5.12 Crockett County Fire Marshal Steve Kenley testified that gasoline burning on the body of Bill Richardson would explain why there was more burning of the rafters directly above the body rather than even burning of the exposed rafters. 1993-02-25 RR p.65-66.
- 3.1.5.13 Crockett County Fire Marshal Steve Kenley testified that the fire at the Bill Richardson’s home was unique because of the 3-foot wide hole all the way across the living room ceiling which created a 36 square feet vent over the source of the fire. This vent prevented any flashovers from occurring during the fire because the heat went away from the source and up to the attic space. 1993-02-25 RR p.50-51 & 55.
- 3.1.5.14 Crockett County Fire Marshal Steve Kenley testified that he determined there was no flashover because there was no burning of the furniture, only heat damage. 1993-02-25 RR p.54.
- 3.1.5.15 Crockett County Fire Marshal Steve Kenley testified that convected heat spreads out as it rises and forms inverted cones of fire damage with the

widest area of fire damage being at levels higher than the source. Because of the nature of convected heat and the patterns of fire damage it causes, the furniture around Bill Richardson's body was not burned. Fire Marshal Kenley also testified that gasoline is a fast burning substance so it didn't burn long enough on Bill Richardson's body to radiate heat, which would do damage to the books on the bookshelves near Richardson's body. 1993-02-25 RR p.66-67.

- 3.1.5.16 Dr. Robert Bux testified "there is no question he [Bill Richardson] died of thermal burns and that that's the cause of death. There is a low level of carbon monoxide and the soot in his mouth and nose indicate that he was alive at the time of the fire. The finding of a homicide is based on the presence of the accelerant to some degree but, more importantly on the subsequent fire investigation." 1993-02-24 RR p. 178.
- 3.1.5.17 Dr. Robert Bux testified to the presence of heart disease on direct examination by the State: "The heart was mildly enlarged and also there was significant atherosclerosis or hardening of the arteries of the heart." 1993-02-24 RR p. 171. Dr. Bux also observed other signs of cardiac distress on direct examination:

Dr. Bux: The lungs were extremely edematous and were an [sic] quite heavily congested and had a bright red, frothy fluid on cross-section. Those were the findings in the lungs.

State: Well, what would cause that bright red, frothy fluid in the lungs?

Dr. Bux: Just acute congestion and rapid heart failure with cor – or pulmonary edema, that's – as well as well as smoke can cause that.

1993-02-24 RR p. 172.

- 3.1.5.18 Defense counsel, Tony Chavez, cross-examined Deputy Chief Medical Examiner Dr. Robert Bux briefly about the frothy fluid in Bill Richardson's lungs. 1993-02-24 RR p. 181-82. However, counsel only related the observation to the levels of carbon monoxide present in the lungs and did not explore heart disease as a possible cause of death.
- 3.1.5.19 Defense counsel, Tony Chavez, presented no medical experts to rebut Deputy Chief Medical Examiner Dr. Robert Bux's testimony that the cause of death was thermal burns and that the death was a homicide due to the presence of accelerants and the subsequent fire investigation.
- 3.1.5.20 Crockett County Fire Marshal Steve Kenley testified that when he received word from the medical examiner that Bill Richardson died of thermal burns, he knew this was not an ordinary fire because most people die of carbon monoxide poisoning when trapped in a fire. 1993-02-25 RR p.63. Deputy Chief Medical Examiner Dr. Robert Bux testified that he found "small bits of remnants of clothing" around Bill Richardson's body and

that he “placed those in a – a Mason jar and sealed them.” 1993-02-24 RR p. 175.

- 3.1.5.21 Defense Counsel, Tony Chavez, cross-examined Dr. Robert Bux about the presence of accelerants but only got as far as to establish that Deputy Chief Medical Examiner Dr. Robert Bux was not able to test the skin for the presence of accelerants. 1993-02-24 RR p. 185.
- 3.1.5.22 On re-cross-examination, defense counsel elicited further testimony from Dr. Robert Bux regarding hypotheticals involving accelerants on Bill Richardson’s body. 1993-02-24 RR p. 191.
- 3.1.5.23 Crockett County Fire Marshal Steve Kenley testified that when clothing samples tested by Bexar County came back positive for Class II accelerants it helped him explain why there was so much heat damage when such a large vent in the ceiling was present. 1993-02-25 RR p.64.
- 3.1.5.24 Crockett County Fire Marshal Steve Kenley testified that the human body is not a good combustible and it is very hard to burn up a body completely. 1993-02-25 RR p.67.
- 3.1.5.25 The State posed a hypothetical to Crockett County Fire Marshall Steve Kenley in which the State described Bill Richardson’s body “in the corner with his clothes covered in accelerants.” Sonia Cacy’s trial counsel, Tony Chavez, objected to the posing of the hypothetical to a non-expert witness and the description of the victim’s body as covered with accelerants. The trial judge sustained the objection in part. 1993-02-25 RR p.90.
- 3.1.5.26 Fire investigation consultant from AID Consulting Engineers, Gary Gilmore, testified that he was asked on November 15, 1991 by Jerry Joplin, an investigator in Ft. Stockton, to analyze for the presence of accelerants the contents of five metal cans containing evidence and to determine at what temperature the remains of an aluminum cot had melted and what force caused the cot to break. 1993-02-24 RR p. 235-36. Gilmore testified that Can 1-A contained carpet remains from under an aluminum cot; Can 1-B also contained carpet remains from under an aluminum cot; Can 2-A contained carpet remains from under the body of the victim; and Can 2-B also contained carpet remains from under the body of the victim. 1993-02-24 RR p. 236-37. Gilmore was asked if there was a third item submitted for testing and he affirmed that there was, the remains of a foam pillow, but Gilmore said that item was returned to Investigator Joplin. 1993-02-24 RR p. 237-38. Gilmore testified that the carpet samples and the foam pillow remains all came back negative for accelerants. 1993-02-24 RR p. 238. When asked why the results were negative, Gilmore testified that there were a variety of reasons a sample might come back negative: “It could of [sic] burned away, it could be destroyed to the point that you cannot identify what you recover, it could be problems with sampling technique, the way it was containerized and there could also be a mistake in the lab.” 1993-02-24 RR p. 238-39.
- 3.1.5.27 Fire investigation consultant from AID Consulting Engineers, Gary Gilmore, testified that he received another metal can on November 11, 1991 from Deputy Chief Medical Examiner Dr. Robert Bux, and that can was identified as “ME 1578-91.” 1993-02-24 RR p. 240-41. Gilmore was

asked to analyze the contents for the presence of accelerants. 1993-02-24 RR p. 241. The contents of that can had articles of clothing and no traces of accelerants were found. 1993-02-24 RR p. 241. District Attorney Albert Valadez asked Gilmore on direct examination about the negative results his laboratory reported on the clothing samples:

Valadez (State): All right. Now, if I were to tell you, Mr. Gilmore, that a prior witness testified that an analysis was done in San Antonio. The results of that analysis on those same articles of clothes was positive for a class II accelerant but that those clothes were in a glass mason jar, would you be able to explain why, when your firm tested these same articles, they produced negative results?

Gilmore: Again, negative results can come from a number of reasons. Given the knowledge that they had been analyzed prior to our receiving them, it's very possible that the previous chemist stripped out all the trace accelerants that were there in his analysis.

1993-02-24 RR p. 241-42.

- 3.1.5.28 Sonia Cacy's defense counsel, Tony Chavez, challenged the State's suggestion that a prior analysis had stripped the clothing samples sent to AID of accelerant and Gilmore admitted that he had no way of knowing whether the sample had been previously tested. 1993-02-24 RR p. 246. Chavez also brought out on cross-examination of Gilmore that the sample tested by AID was sent back to Ft. Stockton but Joe Castorena testified that the sample he tested was still in San Antonio, which would seem to indicate that the clothing samples tested by the labs were different. 1993-02-24 RR p. 246-47.
- 3.1.5.29 Fire investigation consultant from AID Consulting Engineers, Gary Gilmore, testified that, in order to make a positive finding for gasoline, data would have to show five consecutive peaks of a given substance or compound. 1993-02-24 RR p. 248.
- 3.1.5.30 Defense Counsel for Sonia Cacy, Tony Chavez, did not ask Fort Stockton Police Investigator Jerry Joplin about the evidence that Joplin sent to AID Consulting Engineers for forensic analysis. Neither the State nor the defense asked Joplin about evidence Joplin sent for analysis or any reports Joplin had received from AID consultant, Gary Gilmore.
- 3.1.6 Prosecution's Circumstantial Evidence #4: Two suspicious fires occurred at Bill Richardson's home after Sonia Cacy moved in and shortly before Richardson died in the house fire.
  - 3.1.6.1 Fire Chief Jimmy Jackson testified to having been to Bill Richardson's home a week before the house fire that killed Richardson in response to

two small fires, both around the middle of the night to early morning hours. The first fire was in the office area near the window. The second was in a storage room out behind the house near the carport. 1993-02-23 RR p.193-94.

- 3.1.6.2 Fire Chief Jimmy Jackson testified that when he investigated the office fire on November 2, 1991, he saw a bunch of twenty dollar bills fanned out on the desk. 1993-02-24 RR p.12. He also testified that Bill Richardson had several weapons in plain sight when he was investigating the November 2nd fires. 1993-02-24 RR p.13.
- 3.1.6.3 Pecos County Deputy Sheriff, Sam Esparza, testified that he was called out on November 2, 1991 to assist Fire Marshal Frank Salvato with the investigation of three suspected arsons at Bill Richardson's home. 1993-02-24 RR p. 253-54. Deputy Esparza testified that the fires took place on the outside back porch, the inside middle office, and the storage shed outside the house. 1993-02-24 RR p. 254.
- 3.1.6.4 Pecos County Deputy Sheriff, Sam Esparza, testified that Sonia Cacy and Bill Richardson told investigators of the November 2, 1991 fires that they thought someone was out to get them. 1993-02-24 RR p. 254.
- 3.1.6.5 Pecos County Deputy Sheriff, Sam Esparza, was not asked any further questions about his interview of Sonia Cacy and Bill Richardson and was dismissed because the trial court sustained defense counsel, Tony Chavez's, objection that the State had not provided him with the oral statements made by Sonia Cacy to this witness as required by pretrial discovery motions. 1993-02-24 RR p. 255-60.
- 3.1.7 Prosecution's Evidence #5: The Defense theory that a stranger set the house fire that killed Bill Richardson is not plausible.
  - 3.1.7.1 Fire Chief Jimmy Jackson found two of the three dogs owned by Sonia Cacy and Bill Richardson dead in the house when he was investigating after the November 10<sup>th</sup> fire. The dogs were alive at the time of the fire and present in the house. 1993-02-23 RR p.192. The dogs were known to bark at strangers, so the fact that no one heard them barking would seem to indicate that no strangers were prowling about the home.
  - 3.1.7.2 Fire Chief Jimmy Jackson testified that the ladder keeping one gate to the backyard closed and the bar holding the other gate to the backyard closed were both still in place and just as he had observed them a week earlier when he and the fire department responded to the two smaller fires on November 2<sup>nd</sup>. 1993-02-23 RR p.195-96.
  - 3.1.7.3 First Assistant Fire Chief Don Maxey testified that the back door to the kitchen was not locked when he crawled through the house to open it and ventilate the house. 1993-02-23 RR p.215.
  - 3.1.7.4 First Assistant Fire Chief Don Maxey testified that the firemen he met, when he exited the back door to the kitchen initially, had come from the alley where they parked their fire truck and he testified that the gate was open. 1993-02-23 RR p.216-17.

- 3.1.7.5 Fort Stockton Fireman Tony Lannom testified that he and another fireman wrenched open the back gate to the alley. 1993-02-23 RR p.219-20.
- 3.1.8 Prosecution's Evidence #6: Sonia Cacy had motive to kill her uncle, Bill Richardson.
  - 3.1.8.1 Fire Chief Jimmy Jackson testified that Bill Richardson told him that he did not have a will at the time of the November 2, 1991 fires. 1993-02-24 RR p.14.
  - 3.1.8.2 Fire Marshal Frank Salvato testified that when William Cacy, Sonia Cacy's son, accompanied him to the house on November 12, 1991 to gather Sonia Cacy's personal effects, William Cacy took a tan jacket out of Sonia Cacy's closet and the tan jacket had \$620 worth of \$20 bills. Salvato inventoried these items and then released them to William Cacy. 1993-02-24 RR p.121-22.
  - 3.1.8.3 Fire Marshal Frank Salvato testified that on November 11, 1991 he entered the house at 1803 North Young with a warrant to look for items in Sonia Cacy's bedroom and that when he opened one of Cacy's bureau drawers he found a will written by Bill Richardson. 1993-02-24 RR p.122.
  - 3.1.8.4 Bexar County Forensic Document Examiner Marvin Morgan testified that the holographic will found by investigators after the November 10, 1991, fire was written by Bill Richardson and that no evidence was found indicating that Sonia Cacy wrote any part of the will. 1993-02-24 RR p.224.
  - 3.1.8.5 Bexar County Forensic Document Examiner Marvin Morgan testified that he found Sonia Cacy's palm print on the back of the will. 1993-02-24 RR p.226.

### **3.2 Defense Case in Chief**

- 3.2.1 Defense Witnesses
  - 3.2.1.1 Defendant's Cousin, Joy Grant
  - 3.2.1.2 Defendant's Best Friend, Loretta Scott
  - 3.2.1.3 Defendant's Son, Blake Cacy
  - 3.2.1.4 Defendant's Sister-in-Law, Jimmie Ivie
  - 3.2.1.5 Beautician Misty Verette
  - 3.2.1.6 Odessa Fire Captain Donald Dangerfield
- 3.2.2 Defense Evidence #1: Sonia Cacy was under extreme stress due to the fire and her uncle, Bill Richardson, being in the house during the fire, which resulted in hysteria.
  - 3.2.2.1 Crisis Intervention Specialist Betsey Spencer testified that within the space of three or four hours Sonia Cacy went from being aggressive and combative to polite and courteous in her interactions with Ms. Spencer. 1993-02-24 RR p.54.
- 3.2.3 Defense Evidence #2: Bill Richardson had a habit of setting fires.

- 3.2.3.1 Fort Stockton Fire Chief Jimmy Jackson did not initially provide the defense with the written reports he made for the two November 2, 1991 fires. Defense counsel, Tony Chavez, asked that the Chief provide those reports later and be subject to recall. 1993-02-23 RR p. 198-99.
- 3.2.3.2 William Cacy, Sonia Cacy's son, testified that Bill Richardson had a habit of using a blowtorch to light the furnace and to roast marshmallows. 1993-02-25 RR p.182.
- 3.2.3.3 William Cacy, Sonia Cacy's son, testified that Bill Richardson had once burned himself pretty badly by trying to defrost a spray paint can, which had been left outside in the cold, by setting it on a Dearborn heater. The spray paint can exploded when Richardson forgot about it and the can overheated. 1993-02-25 RR p.183.
- 3.2.4 Defense Evidence #3: Sonia Cacy had no motive to kill Bill Richardson because he had no assets.
  - 3.2.4.1 William Cacy, Sonia Cacy's son, testified that Bill Richardson had no real assets of any value and that the two homes, oil wells, truck, and travel trailer that he did own were all in run-down, bad shape. 1993-02-25 RR p.174-77.
  - 3.2.4.2 William Cacy, Sonia Cacy's son, testified that Bill Richardson and Sonia Cacy were like best friends and there was never any bitterness between them. 1993-02-25 RR p.188.
  - 3.2.4.3 Jimmie Ivie, Sonia Cacy's sister-in-law, testified that Sonia Cacy and her uncle Bill Richardson were very close. Mrs. Ivie testified that Bill Richardson thought a lot of Sonia Cacy because he always talked about her. However, the State brought out on cross-examination that Mrs. Ivie had not visited with Bill Richardson in ten years. 1993-02-25 RR p.229-30.
- 3.2.5 Defense Evidence #4: Bill Richardson was in poor health just before the time of the fire.
  - 3.2.5.1 William Cacy, Sonia Cacy's son, testified that Bill Richardson felt a tingling in his arm that he was worried about around October 13, 1991. William Cacy mentioned to Richardson that his father had the same feeling before his heart attack and recommended Richardson see a doctor. 1993-02-25 RR p.179.
  - 3.2.5.2 William Cacy testified that Bill Richardson had shown him a handwritten will in which Richardson admitted to feeling like he would die and in which Richardson left everything to Sonia Cacy. 1993-02-25 RR p.174-77.

### **3.3 The Verdict**

- 3.3.1 The jury found Sonia Cacy guilty of murder as charged in the indictment on February 26, 1991 and sentenced Cacy to 55 years in the Texas Department of Criminal Justice—Institutional Division and assessed a fine of \$10,000. 1993-02-26 RR p.92-93.

## **4 1996 Trial on Punishment**

### **4.1 State's Case in Chief**

#### **4.1.1 State's Witnesses**

- 4.1.1.1 Bill Richardson's Neighbor Dois Clawson
- 4.1.1.2 City of Fort Stockton Police Officer Robert Curtis
- 4.1.1.3 City of Fort Stockton Police Sergeant Ricardo Carron
- 4.1.1.4 Former Fort Stockton Police Officer Armando Villesca
- 4.1.1.5 Crisis Intervention Program Coordinator Betsey Spencer
- 4.1.1.6 Bexar County Deputy Chief Medical Examiner Dr. Robert Bux
- 4.1.1.7 Bexar County Assistant Chief Toxicologist Joe Castorena
- 4.1.1.8 Pecos County Deputy Sheriff Sam Esparza
- 4.1.1.9 Fort Stockton Emergency Room Physician Dr. Sheri Talley
- 4.1.1.10 Fort Stockton Fire Marshal, Frank Salvato
- 4.1.1.11 Crockett County Fire Marshal & 112<sup>th</sup> District Attorney's Office Investigator, Steve Kenley
- 4.1.1.12 MHMR Counselor, Diann Mesa (Rebuttal Witness)

4.1.2 The State pursued the same line of prosecution it had used in the 1993 trial on guilt-innocence but reminded the jury that its purpose was to reassess punishment because Sonia Cacy had already been found guilty of the murder of her uncle, Bill Richardson.

4.1.3 Prosecution's Evidence #1: Sonia Cacy's behavior was inconsistent with that of an innocent person.

4.1.3.1 Sonia Cacy did not cry or have a natural grief response to her uncle being caught in a burning house.

4.1.3.1.1 Neighbor Dois Clawson testified that Sonia Cacy was making crying sounds but there were no tears. 1996-04-15 RR p. 41.

4.1.3.1.2 Crisis Intervention Program Coordinator Betsey Spencer testified that she never saw tears on Sonia Cacy's face or evidence of tears in the soot on Cacy's face. 1996-04-16 RR Morning Session p. 50.

4.1.3.2 Sonia Cacy was belligerent with law enforcement and actually impeded any attempts at rescuing Bill Richardson.

4.1.3.2.1 Neighbor Dois Clawson testified that Sonia Cacy was very upset and hit Victim Services Coordinator Betsey Spencer in the stomach. 1996-04-15 RR p. 44.

4.1.3.2.2 Sergeant Rick Carron testified that Sonia Cacy was hysterical and said that when he and other officers tried to keep Sonia Cacy from going back to the burning house, "[s]he told us to get our fucking hands off of her." 1996-04-15 RR p. 100.



- 4.1.3.2.3 Sergeant Rick Carron testified that when he tried to get a statement and blood samples from Sonia Cacy at the hospital, “[s]he said she wasn’t giving us a fucking thing until she talked to her attorney.” Sonia Cacy was not under arrest at that time nor had she been told she was a suspect. 1996-04-15 RR p. 104-05.
- 4.1.3.2.4 Former Fort Stockton Police Officer Armando Villesca testified that Sonia Cacy was very belligerent toward the police at the the scene and cussed at them. 1996-04-16 RR Morning Session p. 9. Villesca testified that Cacy got in his face and told him, “you can kiss my ass you mother fucker.” 1996-04-16 RR Morning Session p. 11.
- 4.1.3.2.5 Crisis Intervention Program Coordinator Betsey Spencer testified that Sonia Cacy punched her in the stomach as Spencer was trying to prevent Cacy from running back to the burning house. 1996-04-16 RR Morning Session p. 40.
- 4.1.3.2.6 Loretta Scott, long-time friend of Sonia Cacy, testified that when she informed police that Sonia Cacy had calmed down and was ready to give a statement and any other evidence police needed, the police were very belligerent with her and told her that they were going to subpoena Cacy and make sure she gave evidence. Scott also testified that about 13 policemen crowded into Cacy’s hospital room when the tests were done on Cacy. 1996-04-18RR Afternoon Session p. 51-52. Scott testified that she never heard Cacy cuss at any police officers. 1996-04-18RR Afternoon Session p. 58-59.
- 4.1.3.3 Sonia Cacy was drunk because she needed liquid courage to murder her uncle.
  - 4.1.3.3.1 Neighbor Dois Clawson testified that she never smelled alcohol on Sonia Cacy. 1996-04-15 RR p. 57.
  - 4.1.3.3.2 Sergeant Rick Carron testified that he smelled alcohol on Sonia Cacy. 1996-04-15 RR p. 100.
  - 4.1.3.3.3 Crisis Intervention Program Coordinator Betsey Spencer testified that she smelled alcohol on Sonia Cacy. 1996-04-16 RR Morning Session p. 41.
  - 4.1.3.3.4 Fort Stockton Emergency Room Physician Dr. Sheri Talley testified that it was normal for her to draw blood in cases in which a patient had been brought to the emergency room for smoke inhalation. Dr. Talley testified that she was not asked to test Sonia Cacy’s blood for alcohol. 1996-04-16 RR Afternoon Session p. 53-55. Dr. Talley testified that she wrote in her patient notes that Sonia Cacy “had the smell of alcohol on her breath.” 1996-04-16 RR Afternoon Session p. 56.
  - 4.1.3.3.5 Former Fort Stockton Police Officer Armando Villesca testified that he smelled alcohol on Sonia Cacy. 1996-04-16 RR Morning Session p. 11.

- 4.1.3.3.6 Loretta Scott, long-time friend of Sonia Cacy, testified that she did not smell any alcohol on Sonia Cacy when she saw her at the hospital after the fire. 04-18-96 RR Afternoon Session p. 58.
- 4.1.3.3.7 Sonia Cacy admitted to drinking White Russian alcoholic beverages the night before the fire. 1996-04-18 Morning Session RR p.30. Cacy again confirmed that she had 4-5 White Russians the night before the fire. 1996-04-18 Morning Session RR p.34-35. Cacy denied that alcohol had anything to do with her being irrational the morning of the fire. 1996-04-18 Morning Session RR p.38-39.
- 4.1.3.3.8 In closing argument, the State characterized Sonia Cacy as drunk the night before the fire and the morning of the fire. 1996-04-19 RR p.44.
- 4.1.3.4 Sonia Cacy told conflicting stories about what she did during the fire.
  - 4.1.3.4.1 Neighbor Dois Clawson testified that Sonia Cacy first told Clawson that Bill Richardson woke Cacy up and told Cacy to get out of the house because of the fire, but then Cacy changed her story at the hospital and told Clawson she wasn't sure if Richardson had really told her to get out of the house. 1996-04-15 RR p. 52.
  - 4.1.3.4.2 Sonia Cacy testified that she did not pour gasoline on Bill Richardson and burn him. 1996-04-18 Morning RR p.70.
  - 4.1.3.4.3 Sonia Cacy testified that she has never been convicted of a felony in Texas or any other state. 4-18-96 Afternoon Session RR p.66.
  - 4.1.3.4.4 In closing argument, the State argued that rescuers couldn't see their way around the house because of all the smoke, but that Sonia Cacy knew where Bill Richardson's body was because she had murdered him. 1996-04-19 RR p.44.
- 4.1.3.5 Sonia Cacy attempted to hide evidence of her crime by biting off her fingernails
  - 4.1.3.5.1 The State asked Sergeant Rick Carron and Victim Services Coordinator Betsey Spencer about the length of Cacy's nails when Cacy was initially brought to the hospital and the length of her nails several hours later when police had a warrant to take fingernail scrapings from Sonia Cacy. Sergeant Carron seemed to believe that Cacy's nails were much shorter when the scrapings were taken than when he first brought Cacy to the hospital. No evidence of any significance was found from Cacy's fingernail scrapings.
  - 4.1.3.5.2 Sonia Cacy testified that she has always had the habit of biting her nails and the defense entered into evidence a photo of Cacy biting her nails. 1996-04-18 Morning Session RR p.11.
  - 4.1.3.5.3 Loretta Scott, long-time friend of Sonia Cacy, testified that Sonia Cacy has a habit of biting her fingernails. 1996-04-18 RR Afternoon Session p. 50.

- 4.1.4 Prosecution's Evidence #2: Sonia Cacy's singed hair was evidence of direct contact with flames & contradicted her story that she had no contact with fire in living room.
- 4.1.4.1 Neighbor Dois Clawson testified that Sonia Cacy's hair was singed and Cacy's face was covered in smoke. 1996-04-15 RR p. 45.
  - 4.1.4.2 Officer Robert Curtis testified that his hair was not singed when he attempted to enter the burning house through the front door. 1996-04-15 RR p. 15.
  - 4.1.4.3 Sergeant Rick Carron testified that his hair was not singed when he attempted to enter the burning house. He also testified that his partner, Officer Armando Villesca's hair was not singed when he got close to the fire. 1996-04-15 RR p. 97.
  - 4.1.4.4 Former Fort Stockton Police Officer Armando Villesca testified that his hair was not singed when he attempted to enter the burning house. 1996-04-16 RR Morning Session p. 10.
  - 4.1.4.5 Crisis Intervention Program Coordinator Betsey Spencer testified that Sonia Cacy's face had black soot all over it and her face was singed. 04-16-96RR Morning Session p. 39.
  - 4.1.4.6 Fort Stockton Emergency Room Physician Dr. Sheri Talley testified that she wrote in her patient notes that Sonia Cacy had a large amount of smoke around her face and body. She also noted that Cacy had singed hair. 1996-04-16 RR Afternoon Session p. 56.
  - 4.1.4.7 Loretta Scott, long-time friend of Sonia Cacy, testified that when she saw Sonia Cacy in the hospital after the fire Cacy's hair was not singed. 1996-04-18RR Afternoon Session p. 58.
  - 4.1.4.8 Arson Expert Gerald Hurst testified that just lighting gasoline on fire will not produce soot that will get on your body. Soot would not be produced until other combustibles in the room started burning. 1996-04-18RR Morning Session p. 90.
  - 4.1.4.9 The State in closing argument points to Sonia Cacy's singed hair as proof that she doused her uncle, Bill Richardson, with accelerant and watched him "explode into an inferno." 1996-04-19 RR p.44.
- 4.1.5 Prosecution's Evidence #3: Bill Richardson died of thermal burns, which were caused by a fire started with accelerants.
- 4.1.5.1 In its opening statement the State said that Joe Castorena would testify that accelerant was found on Bill Richardson's clothing. 1996-04-15 RR p. 15.
  - 4.1.5.2 Dois Clawson testified that she saw six-foot flames when she approached the windows of the house. 1996-04-15 RR p.31.
  - 4.1.5.3 Dois Clawson testified that no flames came out of the window when Sonia Cacy broke two front windows. When Cacy broke the windows Clawson could see that the flames appeared to be coming from the couch area. 1996-04-15 RR p.34-35.

- 4.1.5.4 Bexar County Deputy Chief Medical Examiner Dr. Robert Bux testified that “[t]he internal examination [of Bill Richardson] revealed soot that we could see extending into his nose and it was also in the oral cavity and in the mouth. But that it did not extend into the trachea or the windpipe.” Dr. Bux also testified that “[t]here was evidence of an enlarged heart weighing 470 grams. And there was also some significant arteriosclerosis or hardening of the arteries of the heart. 1996-04-16 RR Morning Session p. 79.
- 4.1.5.5 Bexar County Deputy Chief Medical Examiner Robert Bux testified that he believed the lack of soot in the windpipe of Bill Richardson indicated that he died quickly in the flames. 1996-04-16 RR Morning Session p. 80.
- 4.1.5.6 Bexar County Deputy Chief Medical Examiner Robert Bux testified that he waited four days before sending the clothing remnants he had taken from Bill Richardson’s body to the toxicology lab for testing for the presence of accelerants. 1996-04-16 RR Morning Session p. 83.
- 4.1.5.7 Bexar County Deputy Chief Medical Examiner Robert Bux testified that Bill Richardson died from thermal burns and whether that exposure to burning caused him to stop breathing, or dehydration, or heart failure was not important. Dr. Bux emphasized that it was the burning that triggered the death. 1996-04-16 RR Morning Session p. 93.
- 4.1.5.8 Bexar County Deputy Chief Medical Examiner Robert Bux testified that he found no evidence that Bill Richardson’s heart had stopped pumping before the fire began. Dr. Bux testified that if Richardson’s heart had stopped pumping before the fire then he would not expect to see soot inside the mouth or nose. 1996-04-16 RR Morning Session p. 94.
- 4.1.5.9 Bexar County Deputy Chief Medical Examiner Robert Bux testified that after he received the fire analysis report from the Fort Stockton Police Department indicating arson he did not change the cause of death but he did rule the manner of death a homicide. Dr. Bux also relied on the finding of accelerant on Bill Richardson’s clothing as support for his finding the manner of death to be a homicide. 1996-04-16 RR Morning Session p. 96.
- 4.1.5.10 Bexar County Deputy Chief Medical Examiner Robert Bux testified that he would not have relied solely on the finding of accelerant on Bill Richardson’s clothing as support for his finding the manner of death to be a homicide. 1996-04-16 RR Morning Session p. 96, 117.
- 4.1.5.11 Bexar County Deputy Chief Medical Examiner Robert Bux testified that Bill Richardson had acute passive congestion, which is the accumulation of blood and fluid that accumulates in the lungs of almost everybody that dies. Dr. Bux testified that fluid may also accumulate in the lungs because the heart is not pumping properly. Dr. Bux admitted that an enlarged heart and hardening of the arteries might indicate that this accumulation of fluids was the result of a heart attack, but countered that the thermal burns over 95% of Bill Richardson’s body contradicted the heart attack theory. 1996-04-16 RR Morning Session p. 109-10.

- 4.1.5.12 On cross-examination, Joe Castorena of the Bexar County Forensic Lab admitted that the clothing samples sent to the AID Laboratory for testing had to be different than the samples tested by Castorena in Bexar County:

Ottaway (defense counsel): What was sent to Dallas to be tested by AID Laboratories?

Castorena: Apparently, these were other samples that were submitted to the laboratory by the law enforcement personnel.

1996-04-16 RR p. 85

This admission contradicts the State's previous assertion in the 1993 trial that the clothing samples tested by AID Laboratories came back negative for accelerants because the testing done by Bexar County had stripped the samples of accelerants.

- 4.1.5.13 Bexar County Assistant Chief Toxicologist Joe Castorena testified that "[the toxicology lab] received from Dr. Bux a jar, this one here, that I gave to him this morning, which he described as remnants of clothing and he wanted an accelerant test performed on this material." 1996-04-16 RR Afternoon Session p. 49. Castorena testified that the glass jar with clothing remnants had been in his possession since Dr. Bux requested testing on November 15, 1991 until this morning, April 16, 1996. 1996-04-16 RR Afternoon Session p. 49. Castorena testified that Robert Rodriguez, one of the lab's chemists, put the clothing samples through the Gas Chromatography/Mass Spectrometry (GC/MS) instrument. Castorena explained that his role was in interpretation of the data and supervising the work. 1996-04-16 RR Afternoon Session p. 50.

- 4.1.5.14 The State in closing argument claimed that Bill Richardson was in pain when he died. 1996-04-19 RR p.44.

- 4.1.6 Prosecution's Evidence #4: Two suspicious fires occurred at Bill Richardson's home after Sonia Cacy moved in and shortly before Richardson died in the house fire.

- 4.1.6.1 Former Fort Stockton Police Officer Armando Villesca testified that he was familiar with the house at 1803 North Young prior to the November 10, 1991 fire because he had responded to a house fire there the week before. 1996-04-16 Afternoon Session RR p. 6.

- 4.1.6.2 Fort Stockton Fire Marshal Frank Salvato testified that on November 2, 1991 he responded to a fire at Bill Richardson's house on 1803 North Young. The first fire occurred at around 3:17 a.m. in the office area of the house. He talked to Sonia Cacy about the possible cause of the fire. Fire Marshal Salvato stated: "Originally the comments was that, I think she woke up, went down the hallway, the back door was open, she came back down the hallway, the door to the office was closed and she saw some smoke and she opened the door and it was a small fire, burning by the window; she went and woke Mr. Richardson up. I think he was in the back bedroom. And he went down the hallway and got a fire extinguisher and I

think she called the police department at that time.” 04-17-96 Morning Session RR p. 6-10.

- 4.1.6.3 Fort Stockton Fire Marshal Frank Salvato testified that he was called out again to respond to a fire at Bill Richardson’s house on 1803 North Young on November 2, 1991 around 6:20 a.m. This fire was in the storage room at the end of the carport. 04-17-96 Morning Session RR p. 15-17.
- 4.1.6.4 Fort Stockton Fire Marshal Frank Salvato stated that he found no accidental cause for this fire and deemed it suspicious in light of the fire that had occurred just hours before and Bill Richardson’s comments that “he was afraid for his life; that somebody was trying to burn his house up, and he was...he was scared.” 04-17-96 Morning Session RR p. 18.
- 4.1.6.5 Fort Stockton Fire Marshal Frank Salvato testified that the earlier fire on November 2, 1991 was also not due to an accidental cause and he listed this fire as suspicious as well. 04-17-96 Morning Session RR p. 18-19.
- 4.1.6.6 Fort Stockton Fire Marshal Frank Salvato testified that the reports of fires at 1803 North Young started after Sonia Cacy moved back into the home around the first of October. 04-17-96 Morning Session RR p. 26.
- 4.1.6.7 Fort Stockton Fire Marshal Frank Salvato testified that he had no knowledge of Bill Richardson starting any fires in Pecos County in the ten years he had been fire marshal. 04-17-96 Morning Session RR p. 23-25.
- 4.1.6.8 In closing argument, the State claimed that Sonia Cacy had set the two fires on November 2, 1991 in order to time the response time of the fire department so that she could prepare for the murder of her uncle, Bill Richardson. 1996-04-19 RR p.38.
- 4.1.7 Prosecution’s Evidence #5: The Defense theory that a stranger set the house fire that killed Bill Richardson is not plausible.
  - 4.1.7.1 Neighbor Dois Clawson testified that Bill Richardson had a dog that he kept in the backyard and that the dog barked a lot. Clawson testified that she did not hear the dog barking the morning of November 10, 1991. Clawson testified that the dog did not bark at Bill Richardson or Sonia Cacy. 1996-04-15 RR p. 48.
  - 4.1.7.2 Fort Stockton Fire Marshal Frank Salvato testified that the windows in the house were crank windows that were not easily opened from the outside. He also testified that Bill Richardson told him that nothing was missing from the office on November 2, 1991. However, Richardson also told him that he saw a 22-caliber pistol on the office file cabinet that he had reported missing in October of that year. 04-17-96 Morning Session RR p. 11-12.
  - 4.1.7.3 Prosecutor for the State, Albert Valadez, summarized Fort Stockton Fire Marshal Frank Salvato’s testimony and Fire Marshal Salvato agreed:

Valadez (State’s counsel): So whoever started those fires brought back a 22 pistol that was missing?

Salvato: Yes

Valadez (State's counsel): And didn't take the money that was on the desk of that office; is that right?

Salvato: Exactly

04-17-96 Morning Session RR p. 20-21.

The State implied that if strangers had broken into the home and started these fires then it would be unusual for them to return a firearm that had previously been reported missing and leave money laying out in the open on a desk untouched.

- 4.1.7.4 Fort Stockton Fire Marshal Frank Salvato testified that firemen who responded to the storage room fire had a difficult time getting in the backyard because "the back gate was wired and had bars in it." He also testified that there were no signs of forced entry through any of the gates to the yard. 04-17-96 Morning Session RR p. 22-23.
- 4.1.7.5 Fort Stockton Fire Marshal Frank Salvato testified that after the two fires on November 2, 1991, he asked Deputy Sam Esparza of the Sheriff's Office to interview neighbors and then they also set up surveillance on the house. However, the surveillance revealed nothing unusual going on around the house. 04-17-96 Morning Session RR p. 23-25.
- 4.1.7.6 In closing argument, the State rebutted Sonia Cacy's theory that a stranger broke into the house and set the fires on November 2, 1991 by pointing out that none of the cash on the office desk was stolen. 1996-04-19 RR p.38.
- 4.1.8 Prosecution's Evidence #6: Sonia Cacy had motive to kill her uncle, Bill Richardson.
  - 4.1.8.1 Ozona Fire Marshal Steve Kenley testified that he never determined motive for the November 10, 1991 fire that killed Bill Richardson. However, investigators reported that the holographic will of Bill Richardson found after the November 10, 1991 fire was written sometime in the middle of October of 1991, Bill Richardson and Sonia Cacy denied any knowledge of a will on November 4th

## **4.2 Defense Case in Chief**

### **4.2.1 Defense Witnesses**

- 4.2.1.1 Imperial Fire Captain Paul Ivey
- 4.2.1.2 AID Labs Chemist John Lynch
- 4.2.1.3 Retired Physician Dr. James Casey
- 4.2.1.4 Fire Investigator Ken Gibson
- 4.2.1.5 Defendant Sonia Cacy
- 4.2.1.6 Arson Expert Dr. Gerald Hurst

- 4.2.1.7 Family Friend Mike Hill
- 4.2.1.8 Defendant's Son Bart Cacy
- 4.2.1.9 Defendant's Daughter Gena Martinez
- 4.2.1.10 Defendant's Best Friend, Loretta Scott
- 4.2.1.11 Defendant's Husband Billy Cacy
- 4.2.1.12 Defendant's Son Blake Cacy
- 4.2.1.13 Man who moved truck during Nov. 2, 1991 storage shed fire, Ben Casas
- 4.2.1.14 Defendant's Daughter-in-Law Myra Cacy
- 4.2.1.15 Fort Stockton Fire Chief Jimmy Jackson (deceased – 1993 testimony read into the record by defense)
- 4.2.2 Defense Evidence #1: Sonia Cacy & Bill Richardson had a close, loving relationship and Cacy would never hurt Richardson.
  - 4.2.2.1 Sonia Cacy testified that she had a close relationship with her Uncle Bill Richardson and even called him “daddy.” 1996-04-18RR p.14.
  - 4.2.2.2 Sonia Cacy used the proceeds from selling her dad's house in Ruidoso, New Mexico to give Bill Richardson \$4,000 for no other reason than he had just bought a new house and she thought he needed it. 1996-04-18RR Morning Session p. 25.
  - 4.2.2.3 The night before the fire Sonia Cacy and Bill Richardson had been cleaning the house, washing the dog, and watching a Burt Lancaster movie together. 1996-04-18RR Morning Session p.61-62.
  - 4.2.2.4 Bart Cacy, Sonia Cacy's son, testified that his mother and Uncle Bill were “real close.” 1996-04-18RR Afternoon Session p. 21.
  - 4.2.2.5 Gena Martinez, Sonia Cacy's daughter, testified that Uncle Bill and her mother had a “close relationship, like father/daughter relationship. They loved each other very much. My mother adored him.” 1996-04-18RR Afternoon Session p. 27.
  - 4.2.2.6 Billy Cacy, Sonia Cacy's husband, testified that Sonia Cacy and Bill Richardson were “real good friends.” 1996-04-18RR Afternoon Session p. 70.
  - 4.2.2.7 In rebuttal, the State called MHMR crisis hotline worker, Diann Mesa, to testify about Sonia Cacy having a prior history of violence and problems with her family. Mesa testified that on July 28, 1991 she received a phone call from Sonia Cacy's daughter, Gena Martinez. 1996-04-18RR Evening Session p. 6-7. Mesa testified that Gena had concerns that her mother, Sonia, who was a patient at MHMR, was abusing alcohol while taking her prescriptions, abusing her prescriptions, and unable to maintain steady employment. 1996-04-18RR Evening Session p. 8. Mesa also testified that Gena reported her mother was having increasingly violent outbursts and verbalizing feelings of victimization by the family. 1996-04-18RR Evening Session p. 9.
- 4.2.3 Defense Evidence #2: Bill Richardson had a habit of setting fires.



- 4.2.3.1 The defense told the jury in its opening statement that Bill Richardson's house had caught fire many times and was careless with fire. 1996-04-15 RR p. 17.
- 4.2.3.2 Sonia Cacy testified that Bill Richardson liked to burn things and was not afraid of fire. 1996-04-18RR Morning Session p.39.
- 4.2.3.3 Sonia Cacy testified that Bill Richardson would light one cigarette, forget about the cigarette he had laid down, and then go light another cigarette. 1996-04-18RR Morning Session p.40.
- 4.2.3.4 Arson Expert Gerald Hurst testified that he went to the Fort Stockton Police Department evidence room and examined Bill Richardson's green chair that he usually sat in. Hurst found three cigarette butts in the chair that he believed had been burning when they fell into the chair. The cigarettes were Carlton brand which was the brand Bill Richardson smoked. Hurst believed finding the cigarettes in the chair would be "evidence that Uncle Bill tended to be a bit of an unintentional fire bug." 1996-04-18RR Morning Session p. 102.
- 4.2.3.5 Bart Cacy, Sonia Cacy's son, knew his Uncle Bill Richardson very well and testified that Richardson was a heavy smoker who was careless with burning cigarettes. 1996-04-18RR Afternoon Session p. 17-18. Bart also testified that Richardson used a blowtorch in the living room to roast marshmallows and hot dogs. 1996-04-18RR Afternoon Session p. 21. Bart testified that "[Uncle Bill] was very careless with fire." 1996-04-18RR Afternoon Session p. 22.
- 4.2.3.6 Gena Martinez, Sonia Cacy's daughter, testified that Bill Richardson was very careless with cigarettes and was always dropping them. 1996-04-18RR Afternoon Session p. 28. Gena also testified that Richardson would cook marshmallows and wienies with a blow torch. 1996-04-18RR Afternoon Session p. 29.
- 4.2.3.7 Loretta Scott, long-time friend of Sonia Cacy, testified that Bill Richardson was very careless with his cigarettes. 1996-04-18RR Afternoon Session p. 49.
- 4.2.3.8 Billy Cacy, Sonia Cacy's husband, testified that Bill Richardson was careless with fire. 1996-04-18RR Afternoon Session p. 68.
- 4.2.3.9 Blake Cacy, Sonia Cacy's son, testified that Bill Richardson was careless with fire. 1996-04-18RR Afternoon Session p. 74.
- 4.2.3.10 Myra Cacy, Sonia Cacy's daughter-in-law, testified that Bill Richardson would burn trash in the house and roast wienies and marshmallows with a blowtorch. 1996-04-18RR Afternoon Session p. 92. Myra also testified that Uncle Bill would put out cigarette burns with a glass of water or a cup of coffee. 1996-04-18RR Afternoon Session p. 93.
- 4.2.3.11 In closing argument, the State turned the defense's argument around and argued that Bill Richardson was familiar with fires and had experience with putting them out. If Bill Richardson was alive after the fire started he would have gone for the garden hose to put it out just like he had at the time of the November 2, 1991 fire. 1996-04-19 RR p.34.

- 4.2.4 Defense Evidence #3 The faulty results of one State's expert influenced other State's experts and a flawed circular logic was introduced.
- 4.2.4.1 In its opening statement the defense said the use of the word gasoline in the medical examiner's report caused Fire Investigator Steve Kenley to conclude the fire was arson. 1996-04-15 RR p. 18.
  - 4.2.4.2 In its opening statement the defense said some of the lab reports that the State will introduce were created for this trial to make their case look better. The defense urged the jury to notice the dates on which the reports were generated. 1996-04-15 RR p.19.
  - 4.2.4.3 John Lynch, an analyst with AID Laboratory in 1991, testified that none of the items tested by AID Laboratory at the request of Jerry Joplin of the Fort Stockton Police Department came back positive for accelerant. These items included carpet under the victim Bill Richardson, carpet under the cot in the living room, and clothing remnants from Bill Richardson's body. 04-17-96 Afternoon Session RR p. 15-16, 18.
  - 4.2.4.4 John Lynch, an analyst with AID Laboratory in 1991, stated that he tested clothing remnants from Bill Richardson and that the clothing came from a metal can not a mason jar. Lynch stated that his lab normally does not analyze items from glass jars because "we have problems with contamination. Often times, the ring seals in there will ensue [sic] hydrocarbons or I should say materials that will confuse our chromatograms." 04-17-96 Afternoon Session RR p. 18-19. **(It should be noted that any references at the 1996 trial to possible "contamination" caused by the ring seal on the glass mason jar containing clothing remnants is not in any way related to Joe Castorena's 2010 revelation of contamination at the morgue and toxicology lab.)**
  - 4.2.4.5 John Lynch, an analyst with AID Laboratory in 1991, testified that the Gas Chromatography/Mass Spectrometry instrument could be adjusted to be more or less sensitive to certain materials and the date on printout from the instrument could be adjusted as well. 04-17-96 Afternoon Session RR p. 22-24.
  - 4.2.4.6 John Lynch, an analyst with AID Laboratory in 1991, testified that he examined the chromatograms from the testing of Bill Richardson's clothing done by Bexar County. Lynch testified that the chromatograms of the gasoline standard and the clothing sample had similar compounds but the peaks have significant differences and don't match. Lynch testified that there was a contamination problem. Lynch testified that the elastic from the boxer waistband which was tested could give a false positive for gasoline. 04-17-96 Afternoon Session RR p. 25, 29, 30.
  - 4.2.4.7 John Lynch, an analyst with AID Laboratory in 1991, testified that he did not agree with Joe Castorena's results because there were not enough matching peaks between the gasoline standard and the clothing sample as required by the American Society of Testing Materials (ASTM) to qualify for a positive finding of accelerant. Lynch testified that the chromatogram data was consistent with pyrolysis products. 04-17-96 Afternoon Session RR p. 31-32.

- 4.2.4.8 On cross examination the State brought out the fact that in 1993 John Lynch's boss and the president of AID Laboratory, Gary Gilmore, had also testified that the evidence tested by AID in 1991 contained no accelerants. 04-17-96 Afternoon Session RR p. 34.
- 4.2.4.9 John Lynch, an analyst with AID Laboratory in 1991, testified that his boss, Gary Gilmore, did understand the results of fire debris analysis, but would not have been able to explain the technology or fundamental theory behind the analysis. 04-17-96 Afternoon Session RR p. 35.
- 4.2.4.10 The defense highlighted the fact the GC/MS instrument could be tampered with to show a false date. 04-17-96 Afternoon Session RR p. 36.
- 4.2.4.11 Fire Investigator Ken Gibson from Kemp, Texas examined the fire scene a week before the retrial on punishment in 1996. 04-17-96 Afternoon Session RR p. 79.
- 4.2.4.12 Fire Investigator Ken Gibson testified that his examination of the fire scene didn't match up with the testimony about the fire scene in the 1993 trial. Gibson testified that in the 1993 trial there was testimony that the deepest charring of the exposed rafters was just over the body of Bill Richardson but Gibson found that the charring was deeper toward the center of the window, which makes sense if the origin of the fire was near the cot in the living room. 04-17-96 Afternoon Session RR p. 82.
- 4.2.4.13 Fire Investigator Ken Gibson hypothesized that Bill Richardson got up to make toast, came back to the living room to smoke a cigarette, Richardson left the cigarette on a table or someplace near his cot when he returned to the kitchen to get the toast, and when Richardson came back again to the living room he saw that the cigarette had caught the sheets on his cot on fire. Gibson hypothesized this based on the facts that Bill Richardson only put in his dentures to eat, Richardson was a chain smoker, there was toast in the toaster, and the area of heaviest burning was around the cot. 04-17-96 Afternoon Session RR p. 94. Gibson further hypothesized that Richardson attempted to put out the fire by going to 30-gallon trash can under the exposed ceiling, which was used to catch rainwater that leaked from the roof, but the room was so smoky that he tried to open one of the windows and when Richardson tried to open a window he had a heart attack and fell over. Gibson based this hypothesis on Richardson's body position next to the trash can and window and what he believed was the broken window handle used for cranking open the window found in Richardson's hand. Gibson does not know for certain that the metallic object found in Richardson's hand was the window crank. Gibson then hypothesized that the window curtains caught fire and fell on Richardson's body, which accounted for the burning over so much of his body. 04-17-96 Afternoon Session RR p. 94-95.
- 4.2.4.14 On cross examination the State asserted that Fire Investigator Ken Gibson's theory that the curtains fell on Bill Richardson was false because Richardson was burned all over his body and not just the part of his body where the curtains might have fallen on the body. 04-17-96 Afternoon Session RR p. 119.

- 4.2.4.15 On redirect Fire Investigator Ken Gibson testified that the clothes dryer had been damaged in the November 2<sup>nd</sup> fire and that Richardson had been hanging clothes around the house to dry, which meant that there was a lot of combustible material in the living room. 04-17-96 Afternoon Session RR p. 121.
- 4.2.4.16 Arson Expert Gerald Hurst, on voir dire conducted by the State, claimed that the clothing remnants in the metal can tested by AID Laboratory were Bill Richardson's real clothing remnants and the clothing in the glass mason jar tested by Joe Castorena were fake.

State: Oh, okay. And you're telling this jury from a picture that the contents of that can are the real clothes that were worn on Bill Richardson?

Hurst: Oh, those are the real clothes all right, there's no doubt about it.

State: And are you saying the clothes in the jar are not?

Hurst: They're a fake. Plant. They're a fraud.

1996-04-18RR Morning Session p. 72.

- 4.2.4.17 Arson Expert Gerald Hurst testified that the Medical Examiner Dr. Robert Bux's name and the case identification number was on the metal container with Bill Richardson's clothing but not on the glass mason jar Joe Castorena claimed contained Bill Richardson's clothing remnants. 1996-04-18RR Morning Session p. 76.
- 4.2.4.18 Arson Expert Gerald Hurst testified that the dates on the lab reports on Bill Richardson's clothing had been changed to show a date in 1991 when actually the testing had been done in 1992. 1996-04-18RR Morning Session p. 80. Hurst testified that the machine's date could be easily manipulated. 1996-04-18RR Morning Session p. 85-86.
- 4.2.4.19 Arson Expert Gerald Hurst testified that Joe Castorena's testimony that AID Laboratory found no accelerant in the clothing sample because the accelerant had been removed by his testing was false because the sample tested by Castorena was a different sample than that tested by AID. 1996-04-18RR Morning Session p. 82-83. Hurst also testified that there was no documentation of the clothing samples being split up between the metal can and the glass jar. 1996-04-18RR Morning Session p. 83-84.
- 4.2.4.20 Arson Expert Gerald Hurst testified that the general problem with testing for accelerant at a fire scene is that the only way accelerant will remain and not burn up is "if the arsonist uses too much material so that he exhausts all of the oxygen before it [accelerant] burns up and the fire department gets there early enough to put it out; if the rug is still wet with the materials you can get a very accurate analysis. Or if he pours a trail through a house or puts it in spots, some spots don't catch on fire, for one reason or another." 1996-04-18RR Morning Session p. 87-88.

- 4.2.4.21 Arson Expert Gerald Hurst testified that he was able to get some samples of the cot mattress by raking through the debris of the fire scene and the mattress was made of polyurethane foam. Hurst did testing on the mattress remnant by holding a lighter to it and testified that it burned furiously like gasoline would and left a petroleum residue. 1996-04-18RR Morning Session p. 91-92.
- 4.2.4.22 Arson Expert Gerald Hurst explained that it was not the fault of local fire investigators for relying on the lab results indicating the presence of accelerant. Hurst testified that it was natural for fire investigators to see the lab results indicating accelerant and conclude that arson had occurred. 1996-04-18RR Morning Session p. 94-95.
- 4.2.4.23 Arson Expert Gerald Hurst testified that keeping evidence in a glass mason jar can lead to a false positive for accelerant because of the rubber seal on the jar lids. Hurst explained that evidence being collected for accelerant testing should be kept in a metal can without a lining or seal which could give a false positive. 1996-04-18RR Morning Session p. 97.
- 4.2.4.24 Arson Expert Gerald Hurst testified that the fire investigation wasn't as careful as the Fort Stockton Fire Department claimed because footstools which were in pictures prior to the fire and found in the evidence room were not seen in the investigation video and not indicated in the investigation diagrams, which might mean that items had been moved. 1996-04-18RR Morning Session p. 101.
- 4.2.4.25 Arson Expert Gerald Hurst testified that State's Exhibit # 52 shows that curtains are laying over Bill Richardson's body because "there's a thick residue on the body that I would think are burned curtains." Hurst says the curtains were made of a rubberized fabric. 1996-04-18RR Morning Session p. 112.
- 4.2.4.26 Arson Expert Gerald Hurst testified: "The origin of the fire was...viewing it as you would come in from the kitchen, the origin of the fire would have been over to, on this...well, from my standpoint here, it's to the right of the cot. As seen from the kitchen, it would have been to the left of the cot. And most likely back towards that orange chair and that table." 1996-04-18RR Morning Session p. 113.
- 4.2.4.27 Arson Expert Gerald Hurst testified that the reason he thought the fire started to the side of the cot is that there was a little footstool that got burned. Hurst explained that normally the footstool would have been too low and out of the way to catch fire if the fire hadn't originated near the side of the cot. The vent created by the hole in the ceiling would have kept something as low as the footstool from reaching ignition temperature if the fire had started further away from the footstool. 1996-04-18RR Morning Session p. 114-15.
- 4.2.4.28 Arson Expert Gerald Hurst testified that most likely the fire started off small and took a long time to grow. Hurst hypothesized that a burning cigarette caught a sheet hanging off the cot on fire and could have easily been put out by Uncle Bill using the rain water from the trash can he kept under the leaking ceiling. 1996-04-18RR Morning Session p. 116-17.

- 4.2.5 Defense Evidence #4: Sonia Cacy had no motive to kill Bill Richardson because he had no assets.
- 4.2.5.1 Sonia Cacy testified that she paid for part of Bill Richardson's funeral out of her own money. 1996-04-18RR p.12.
  - 4.2.5.2 Sonia Cacy testified that "[a]s long as Uncle Bill was around I had whatever I needed, and so did he. His house was mine, as long as forever. Anything he would have had he would of given me. He didn't have anything, that I would gain any money by, ever. He owed more than his house would have been worth." 1996-04-18RR Morning Session p.70-71.
- 4.2.6 Defense Evidence #5: The fire near the shed on November 2, 1991 was proof that strangers were lurking around the property.
- 4.2.6.1 Neighbor Dois Clawson testified that Sonia Cacy told her that "she thought there was someone trying to burn them out of their home" and "she couldn't get any help from the firemen or the police." 04-15-96RR p. 62
  - 4.2.6.2 Sonia Cacy testified that there had been evidence of someone being in the Airstream trailer that was out in the backyard near the alley. 1996-04-18RR Morning Session p.41.
  - 4.2.6.3 Sonia Cacy testified that the fire department investigators took notes when asking her and her Uncle about the fires and the investigators told Sonia and Uncle Bill that the investigators would type up statements for Sonia and Uncle Bill to sign. The investigators told Sonia and Uncle Bill they would investigate the shed and office fire areas more closely when they brought the statements for them to sign. Sonia Cacy testified that the investigators did not return that week with the statements or to do further investigation. 1996-04-18RR Morning Session p.53.
  - 4.2.6.4 Sonia Cacy did not believe that her Uncle Bill accidentally started the office fire or the storage room fire because he would usually admit to being the cause of a fire at the house. 1996-04-18RR Morning Session p.53.
  - 4.2.6.5 Arson Expert Gerald Hurst hypothesized that Bill Richardson accidentally set the small fires in the office and the shed on November 2, 1991. Hurst believed that Richardson was having mental problems and started the two fires inadvertently. 1996-04-18RR Morning Session p. 136.
  - 4.2.6.6 Blake Cacy, Sonia Cacy's son, testified that Bill Richardson was worried about vagrants living in the old Air Stream trailer behind the house. 1996-04-18RR Afternoon Session p. 76.
  - 4.2.6.7 Myra Cacy, Sonia Cacy's daughter-in-law, testified that around the time of his death Bill Richardson was acting differently and that he seemed paranoid about people stealing from him. 1996-04-18RR Afternoon Session p. 95.
- 4.2.7 Defense Evidence #6: Bill Richardson was in poor health just before the time of the fire and the cause of death was likely cardiac arrest.
- 4.2.7.1 Dr. James Casey, a retired general medical practitioner, reviewed the autopsy of Bill Richardson and testified for the defense. Dr. Casey discussed the autopsy report's findings of hardened arteries and the

bright, red, frothy substance in the lungs. Dr. Casey testified that the bright, red, frothy substance was sudden heart failure or the heat of the fire caused edema in the lungs. Dr. Casey testified that because the autopsy report does not find any “cooking of the inner-organs,” the more likely cause of the bright, red, frothy substance was sudden cardiac failure. Dr. Casey explained that the heart will quit pumping and will leave blood pooling in the lungs. This pooling in the lungs will make breathing difficult. 04-17-96 Afternoon Session RR p. 43-44.

- 4.2.7.2 Dr. James Casey, a retired general medical practitioner, testified that soot could be found in the mouth and the nose because Bill Richardson may have been able to take short breaths during his heart attack. 04-17-96 Afternoon Session RR p. 45.
- 4.2.7.3 Dr. James Casey, a retired general medical practitioner, testified that Bill Richardson could not have died from the fire and then had a heart attack. 04-17-96 Afternoon Session RR p. 45. This of course makes no sense to say because of course a person can’t die of one cause and then die of another cause. However, most likely the defense is trying to rebut the Medical Examiner Dr. Robert Bux’s testimony that Bill Richardson’s thermal burns could have triggered a heart attack.
- 4.2.7.4 Dr. James Casey, a retired general medical practitioner, testified that Bill Richardson’s body showed evidence of coronary heart disease and that he may have suffered symptoms like chest, neck, or arm pain and shortness of breath. 04-17-96 Afternoon Session RR p. 47.
- 4.2.7.5 Outside the presence of the jury the State asked Dr. James Casey why he did not practice medicine any more. Dr. Casey responded that his license had been revoked for having intercourse with a patient. 04-17-96 Afternoon Session RR p. 50.
- 4.2.7.6 On cross-examination the State asked Dr. James Casey how a body could suffer thermal burns over 95% of the body in the 10-15 minutes that the fire on November 10, 1991 lasted if no accelerant were used. Dr. Casey hypothesized that the clothes or blanket kept the fire burning on the body. 04-17-96 Afternoon Session RR p. 61-62.
- 4.2.7.7 Sonia Cacy testified that Bill Richardson was having arm pains and not feeling well when she returned in September 1991. 1996-04-18RR p.35.
- 4.2.7.8 Sonia Cacy testified to knowing about the handwritten will that Bill Richardson had made as well as Richardson’s attempts to use a form will. Cacy testified that Richardson was worried about his cataract surgery and wanted to prepare the will in case something happened in surgery. 1996-04-18RR p.42-43.
- 4.2.7.9 Bart Cacy, Sonia Cacy’s son, testified that he talked to Bill Richardson on the phone about a week and a half before Richardson died and he said that his uncle was rambling, not making sense, and complaining about pains in his arm. 1996-04-18RR Afternoon Session p. 20.
- 4.2.7.10 Blake Cacy, Sonia Cacy’s son, testified that Bill Richardson was carrying a gun around in his pocket near the time of the fire, which he thought was

unusual. Blake also testified that Uncle Bill seemed slower than usual and was rubbing his arm a lot. 1996-04-18RR Afternoon Session p. 76.

4.2.8 Defense Evidence #7: Sonia Cacy was not acting like an innocent person because of problems with mental illness and addiction.

4.2.8.1 Fort Stockton Emergency Room Physician Dr. Sheri Talley was questioned about Sonia Cacy's demeanor in the hospital. Dr. Talley testified that Cacy was very cooperative throughout her examination. When asked if she were present when Cacy cussed out police officers who were trying to collect evidence from Cacy at the hospital, Dr. Talley stated that she had no knowledge of that and was not present if any cussing at police officers took place. Under cross-examination by defense counsel Dr. Talley testified about grief reactions and panic reactions. Defense counsel asked if grief reactions could cause some people to react by getting violent or aggressive and Dr. Talley answered that, yes, that was a possible reaction. Dr. Talley testified that grief reactions, which are fairly intense physiological reactions to the death of close relative, can occur within the first six months of the relative's death. 1996-04-16 RR Afternoon Session p. 58-62.

4.2.8.2 Sonia Cacy testified that on the morning of the fire, she thought someone nudged her but no one was there. Smoke was coming into her bedroom. Sonia looked out of her room into the dark house and saw nothing moving. She thought she heard Uncle Bill call her. She opened his bedroom door but no one was in there so she shut the door. Sonia went to the kitchen and thought she called the fire department. Sonia says she called for Uncle Bill but couldn't find him. Sonia said the fire looked to be at the cot. Sonia said the fire was raging and smoke was everywhere. Sonia then opened the office door to look for Uncle Bill but he wasn't there either so she shut the door. Then Sonia had trouble breathing so she panicked and went to her bedroom where she crawled out of her window. 4-18-96 RR Morning Session p.64-69.

4.2.8.3 Sonia Cacy admitted to having a drinking problem. 4-18-96 RR p.36.

4.2.8.4 Sonia Cacy testified that she had been voluntarily admitted to a mental hospital in Big Springs because of anxiety, depression, and suicidal thoughts brought on by money problems with her husband, Billy Cacy. 4-18-96 RR p.28.

### **4.3The Verdict**

4.3.1 The State argued to the jury that Sonia Cacy should be given the maximum sentence of 99 years. 1996-04-15 RR p. 16.

4.3.2 The jury sentenced Sonia Cacy to 99 years in the Texas Department of Criminal Justice—Institutional Division.



## 5 Post Conviction Evidence

### 5.1 Evidence Submitted on July 4, 1998 to the Board of Pardons & Paroles

- 5.1.1 Pathology Report by and Affidavit of **Dr. Edward Friedlander**, M.D., Chairman of Dept. of Pathology, University of Health Sciences
  - 5.1.1.1 Dr. Edward Friedlander is a medical doctor and board-certified in anatomic and clinical pathology from Kansas City, Missouri.
  - 5.1.1.2 Dr. Friedlander examined the autopsy report of Bill Richardson and stated that severe coronary atherosclerosis was present and would have been sufficient to have caused sudden cardiac death. Dr. Friedlander also stated that the finding of pulmonary edema strongly suggested sudden cardiac death. Dr. Friedlander observed that the marked congestion in the liver was inconsistent with death by incineration or flash-fire inhalation. Dr. Friedlander stated that death by incineration or gas-inhalation was not consistent with the findings of the autopsy report.
  - 5.1.1.3 Dr. Friedlander stated that the coronaries should have been decalcified and sectioned more meticulously in order to find a bleed or a clot. Dr. Friedlander also criticized the lack of discussion within Dr. Robert Bux's autopsy report of the amount of soot found in the larynx and trachea. He stated that the failure to discuss the soot in the larynx and trachea "reflects very badly on the pathologist's overall credibility." Dr. Friedlander acknowledged that Dr. Bux testified at trial regarding the lack of soot in the trachea, but indicated that this lack of soot in the trachea completely ruled out incineration while alive.
  - 5.1.1.4 Dr. Friedlander stated in his affidavit that finding an expert to point out the inconsistencies in the Bexar County autopsy report should be easy as the errors are easy to identify and demonstrate at trial.
- 5.1.2 Pathology Report by **R. K. Wright, M.D., J.D.**, Director, Dept. of Pathology, Univ. of Miami School of Medicine
  - 5.1.2.1 Dr. Ronald K. Wright is a board-certified forensic pathologist from Miami, Florida.
  - 5.1.2.2 Dr. Wright examined the autopsy report of Bill Richardson and disagreed with the autopsy report's conclusion that the fire was caused by arson. Dr. Wright concludes from Bill Richardson's height and weight and the autopsy report that Bill Richardson was "not extremely severely incinerated." Dr. Wright stated that persons like Mr. Richardson with severe heart and lung disease often die early in fires which results in low levels of carbon monoxide. Dr. Wright opines that Bill Richardson's tobacco addiction was a more likely cause of the fire.
- 5.1.3 Pathology Report by **J. Scott Denton, M.D.**, Deputy Medical examiner, Cook County, Illinois
  - 5.1.3.1 Dr. Scott Denton is a forensic pathologist and Deputy Medical Examiner in Cook County, Illinois.
  - 5.1.3.2 Dr. Denton examined the autopsy report of Bill Richardson and stated that the findings are inconsistent with homicide and the cause of death was

more likely accidental. Dr. Denton opines that the inconsistent results regarding whether gasoline was present on the clothing samples would have been enough to push the the manner of death away from homicide to undetermined. Dr. Denton also stated that Bill Richardson's history as a cigarette smoker would point in the direction of an accident rather than a homicide. Dr. Denton pointed out that the finding of severe coronary artery occlusion could have caused a fatal heart attack at any time, especially in a stressful situation.

5.1.4 Autopsy Report by Medical Examiner, **Dr. Robert Bux**, Bexar County Forensics Lab

- 5.1.4.1 "External Examination" notes describe soot in the nose and oral cavity.
- 5.1.4.2 "Evidence of Injury" notes describe soot in the nares and oral cavity only. It is also noted that the internal organs are extremely congested and have a red appearance.
- 5.1.4.3 "Internal Examination: Cardiovascular System" notes describe diffuse calcification of the coronary arteries due to atherosclerotic plaque formation. Of particular note is the 60-80% stenosis of the descending left anterior artery.
- 5.1.4.4 "Internal Examination: Lungs" notes describe the parenchyma as exuding a bright red frothy fluid and finding no pulmonary emboli.
- 5.1.4.5 "Internal Examination: Liver" notes describe the parenchyma as appearing congested.
- 5.1.4.6 "Internal Examination: Kidney" notes describe the cortex as appearing congested.
- 5.1.4.7 "Toxicology" notes describe no alcohol present in the blood, urine, or vitreous. Under "Other" it is noted that "Remnants of Clothing – Positive Class II Accelerant (i.e. gasoline, etc.)."
- 5.1.4.8 Under "Findings" it is noted that the total body surface was 95% thermal burned "with third degree burns and charring to the level of the muscles." It is also noted that acute passive congestion was present in the lungs and internal organs.
- 5.1.4.9 Under "Conclusion" the cause of death is "the result of extensive thermal burns including charring of greater than 95% of the total body surface area. Remnants of the clothing on the deceased at the time of autopsy tested positive for Class II Accelerant (gasoline). The origin of the fire has been determined to be intentionally set by Arson Investigators."
- 5.1.4.10 "Manner of Death" is listed as homicide.

5.1.5 Affidavit of **Gerald Hurst, Ph.D.**, Chemistry

- 5.1.5.1 Dr. Gerald Hurst is an arson consultant from Travis County, Texas with a doctoral degree in chemistry from Cambridge. Affidavit of Dr. Gerald L. Hurst, PhD, p. 1.
- 5.1.5.2 Dr. Gerald Hurst examined all the original evidence used in the 1993 and 1996 trials of Sonia Cacy as well as the transcripts of those trials. Affidavit of Dr. Gerald L. Hurst, PhD, p. 1.

- 5.1.5.3 Dr. Gerald Hurst claimed that he “uncovered crucial evidence which was not available to the defendant at trial for two distinct reasons: (1) Sonia Cacy was not originally provided with any expert help to offset what was primarily a case based on un rebutted scientific evidence and un rebutted medical testimony; and (2) the prosecution withheld or misrepresented extremely important exculpatory evidence related to chemical analysis, fire investigation and chain of possession documents.” Affidavit of Dr. Gerald L. Hurst, PhD, p. 1.
- 5.1.5.4 Dr. Gerald Hurst pointed out that “the Daubert law [*Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (June 28, 1993)] had not yet taken effect in Texas at the time of her trial. Had it been law at that time and had she [Cacy] been provided with technical expertise, much of the unsound evidence used to indict and convict her would not have been admitted and she would have gone free.” Affidavit of Dr. Gerald L. Hurst, PhD, p. 2. Dr. Hurst is not a legal expert and his observation ignores the fact that, in Texas, *Kelly v. State*, 824 S.W.2d 568 (Tex. Crim. App. 1992) had already modified the standard for the admission of expert testimony and had questioned the *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923) “general acceptance” test for novel scientific methods before *Daubert* became the law in federal courts. The scientific methods used by experts in Sonia Cacy’s trial would have been subject to scrutiny under *Kelly* had Cacy’s 1993 trial counsel subjected the State’s experts to a voir dire examination.
- 5.1.5.5 Most of Dr. Gerald Hurst’s affidavit is his opinion about the prosecution’s case against Sonia Cacy. Although Dr. Hurst may have extensive experience testifying in court and providing expert analysis in criminal prosecutions, his training and certification limit his expertise to arson investigation and this court will not consider the opinions of Dr. Hurst regarding the prosecution’s case against Sonia Cacy in non-arson related matters (i.e., Sonia Cacy’s relationship with Bill Richardson; Bill Richardson’s dementia; the autopsy; Bill Richardson’s will; fingernail scrapings of Sonia Cacy).
- 5.1.5.6 Dr. Gerald Hurst discredited the conclusion of arson in an initial report by Ft. Stockton Fire Marshal Frank Salvato based on quotations regarding “glass crazing” from Fire Marshal Salvato’s report written on the day of the fire. Affidavit of Dr. Gerald L. Hurst, PhD, p. 11. However, Fire Marshal Salvato’s report was not entered into evidence and Fire Marshal Salvato did not mention “glass crazing” when he testified at trial. Fire Marshal Salvato testified that he determined a fire’s area of origin based on the patterns of burning, heat, and smoke found at the scene of the fire. 1993-02-24 RR p. 111. Fire Marshal Salvato ruled out an accidental fire by electrical short or gas leak in the living room but could not rule out an accidental fire by smoking. 1993-02-24 RR p. 119-20. Fire Marshal Salvato did not testify as to how/if he determined whether arson occurred. Fire Marshal Salvato testified merely about being called to one of the fires that had occurred days before the fire that killed Bill Richardson, Sonia Cacy’s demeanor upon his arrival, how he determined the area of origin of the fire, the extent of the fire damage found in the house, the items he

allowed the family to collect after the fire, the determination that Bill Richardson was dead when first responders arrived, and his decision with Fire Chief Jimmy Jackson to call in another fire investigator from another county, Steve Kenley.

- 5.1.5.7 Dr. Gerald Hurst stated that no pour patterns, which would suggest that accelerant was used, were visible at the scene of the fire. Dr. Hurst criticized Crockett County Fire Marshal Steve Kenley for testifying that the burned area under Bill Richardson's cot in the living room was indicative of the presence of accelerant. Dr. Hurst claimed that trial testimony showed that the cot's foam mat melted and collapsed which accounted for the burn pattern on the carpet beneath Bill Richardson's cot that Fire Marshal Kenley said was caused by accelerant. Dr. Hurst criticized Fire Marshal Kenley for not telling the jury "that the cot mattresses were made of polyurethane foam, a material which has earned the title 'solid gasoline' because its similarity to gas in fueling hot, smoky, fast-burning fires." Affidavit of Dr. Gerald L. Hurst, PhD, p. 11.
- 5.1.5.8 Dr. Gerald Hurst disputed that the burns on Bill Richardson's body were a result of gasoline being poured on him and ignited. Dr. Hurst pointed to the existence of heavy, brown drapes in pictures of the living room prior to the trial. Dr. Hurst said that identical brown drapes were found in other rooms of the house that did not have fire damage. Dr. Hurst stated that after his on-site examination of the fire scene, his examination of photos and reports provided of the fire scene and his review of the testimony of the two trials, he determined that the drapes across the window near the body dropped on Bill Richardson's body and caused widespread burning. Dr. Hurst criticized fire investigators at the time for not realizing that the drapes were responsible for the burning of the body. Dr. Hurst stated that the drapes' "secondary nylon see-through curtain melted and imbedded itself in the area of the body and was easily observable." Affidavit of Dr. Gerald L. Hurst, PhD, p. 11-12. At the 1993 trial, defense arson expert, Odessa Fire Captain Donald Dangerfield testified, "If you will look at – there is burning down here on the bottom of the window, burning taking place there and burning taking place up the wall and there were, in my opinion, drapes here that, from burning on this wall, the fire down here, and these would of [sic] caught the drapes on and would of [sic] carried the fire to that." 1993-02-26 RR p. 105. However, no pictures of the living room before the fire were introduced at trial, so it is unclear as to what photos Dr. Hurst was relying when he stated that curtains were present on the windows of the living room. It is also not clearly observable that the "secondary nylon see-through curtain" is present near the body. The record alone does not appear to bear out Dr. Hurst's statements regarding the drapes being the cause of Bill Richardson's burns. Furthermore, the jury was presented with the idea that drapes could have caused the more intense charring along the wall next to the body underneath the hole in the ceiling, but the defense did not suggest that the drapes fell and caused the burning of the body.
- 5.1.5.9 Dr. Gerald Hurst disagreed with Crockett County Fire Marshall Steve Kenley's assessment that the charring to the rafters above Bill

Richardson's body was the result of a high heat source in that particular area. Dr. Hurst stated: "Although the rafters appear darker in the photograph, this is an illusion caused by the reflection of light off the shiny surface of the rafters farther from the body." Dr. Hurst claimed that based upon his on-site inspection of the fire scene the rafters were evenly charred across the span of exposed rafters and the product of hot gases venting through the ceiling. Affidavit of Dr. Gerald L. Hurst, PhD, p. 12.

- 5.1.5.10 Dr. Gerald Hurst disagreed with Crockett County Fire Marshal Steve Kenley's report that stated: "Something burned very hot and very fast in that room. So hot and so fast that the vent was unable to handle it. Then, what ever it was burned up." Dr. Hurst asserted that a flashover can occur without the presence of accelerant because the synthetic materials in padded furniture and mattresses can also cause rapid flaming. Dr. Hurst stated that no flashover occurred in the Richardson house because of the ventilation through the ceiling, which had a large section of sheetrock missing. Dr. Hurst observed that petroleum-based products found in synthetic materials around the house can create more heat and smoke than a typical accelerant. Affidavit of Dr. Gerald L. Hurst, PhD, p. 12-13.
- 5.1.5.11 Dr. Gerald Hurst criticized the local fire investigators because they did not eliminate all accidental causes nor did they take into account the presence of rubberized cloth curtains in the living room which could have fallen on the body of Bill Richardson or the two polyurethane foam mattresses on the Bill Richardson's cot which were highly flammable. Dr. Hurst claimed to have investigated the fire scene in 1996 and found remnants of the polyurethane mattresses and the rubberized drapes. Dr. Hurst pointed to the manufacturer's warning on the GR Foam Products' flexible polyurethane foam Material Safety Data Sheet as evidence that the "PRODUCT MAY MELT, AFTER IGNITION, TO FORM FLAMMABLE LIQUID. BURNING PRODUCES INTENSE HEAT, SMOKE, TOXIC GAS." Dr. Hurst pointed out that, in Crockett County Fire Marshall Steve Kenley's long report to the district attorney, Kenley discussed the probability of the the existence of a polyurethane foam rubber mattress on Bill Richardson's cot: "The mattress was probably made of polyurethane foam rubber. And polyurethane does burn rapidly. It does produce a very sooty smoke. It will produce a lot of heat, rapidly." However, Dr. Hurst criticized Fire Marshal Kenley for not testifying at trial about the polyurethane foam. Affidavit of Dr. Gerald L. Hurst, PhD, p. 13-14. Dr. Hurst is correct that Fire Marshal Kenley did not testify specifically about the rate at which the polyurethane foam mattress on Bill Richardson's cot would have burned, but even if Fire Marshal Kenley had testified about the polyurethane foam mattress, this testimony would have been directly contradicted by Sonia Cacy's own defense witness, Odessa Fire Captain Donald Dangerfield. Captain Dangerfield testified as follows at the 1993 trial on guilt/innocence:

Chavez (defense counsel): [W]ell, tell us about polyurethane before I go any further?

Captain Dangerfield: It's slow burning, in – you know, with a source like a cigarette, if – if a cigarette just dropped on to the foam itself, it would probably make a burn where it would burn out a opening – at a slow burn that would not ignite the flame because it didn't get hot enough and it would probably go out.

Chavez (defense counsel): Now, let's say that the polyurethane was exposed to the heat from the burning sheet?

Captain Dangerfield: Then it would reach ignition temperature and it would burn.

1993-02-26 RR p. 50-51.

- 5.1.5.12 Captain Dangerfield testified that polyurethane was actually a slow-burning material. Dr. Hurst criticized Sonia Cacy's defense counsel for not getting a qualified arson expert to rebut the State's arson experts, who overlooked simple, obvious explanations for the cause of the fire. Affidavit of Dr. Gerald L. Hurst, PhD, p. 15.
- 5.1.5.13 Dr. Gerald Hurst observed that the presence of accelerant on Bill Richardson's clothing was the "cornerstone of the prosecution's case." However, after his own examination of the gas chromatography/mass spectrometry (GC/MS) data, Dr. Hurst concluded that the data show compounds that are the result of pyrolysis not the presence of accelerants. Dr. Hurst forwarded the GC/MS data to other fire debris analysis experts and all of these experts agree that the data is negative for the presence of accelerants. However, Dr. Hurst claimed that "there were no forensic scientists available at the time of her [Sonia Cacy] trial to tell the jury the truth; that the GC/MS data show absolutely no presence of gasoline." Further, Dr. Hurst criticized Sonia Cacy's defense counsel for never requesting funds for an arson expert. Affidavit of Dr. Gerald L. Hurst, PhD, p. 15-16. However, the lack of experts is directly contradicted by the affidavits of the other experts consulted by Dr. Hurst because many of them state that they would have been available to testify at the time of trial had they been asked. As for the defense requesting funds for an expert, Tony Chavez testified that he was told by the trial judge, Alex Gonzales, that there was not enough money to hire an expert like Dr. Richard Henderson to testify regarding the fire debris evidence. 2014-06-30 Writ Hearing RR p. 138-39. Tony Chavez testified that he chose to go with Odessa Fire Captain, Donald Dangerfield, as an arson witness because he could understand the layman's terms Captain Dangerfield used and he felt that the jury would be able to understand Captain Dangerfield's theories. 2014-06-30 Writ Hearing RR p. 139-40.

- 5.1.5.14 Dr. Gerald Hurst attacked the ability of Joe Castorena as analyst of fire debris. Dr. Hurst claimed that Castorena is mainly experienced in drug analysis and has little to no training in fire debris analysis. Further, Dr. Hurst states that Joe Castorena did not actually run the samples through the GC/MS machine but merely analyzed the data that Robert Rodriguez, another lab technician had run through the machine. Dr. Hurst claimed that Castorena admitted this in the 1996 retrial on punishment. Affidavit of Dr. Gerald L. Hurst, PhD, p. 17. It is true that Joe Castorena testified in the 1996 trial that Robert Rodriguez performed the mechanical part of putting the samples through the GC/MS instruments. 1996-04-16 RR p. 50. However, the experts in the writ proceedings have never claimed that there was a problem with how the samples were run through the instruments. The experts have all criticized the interpretation of the data received from the instruments. Robert Rodriguez had nothing to do with the interpretation. Joe Castorena interpreted the data.
- 5.1.5.15 Dr. Gerald Hurst claimed that in March of 1996 he discovered in the Fort Stockton police evidence storage room a can containing a sample of Bill Richardson's clothing that was sent to AID Laboratory in Dallas for analysis and which had come back negative for gasoline and other accelerants. Dr. Hurst claimed that this is exculpatory evidence that was not presented to the jury. Affidavit of Dr. Gerald L. Hurst, PhD, p. 17. The State called fire investigation consultant, Gary Gilmore, from the AID Laboratory to testify at the 1993 trial. Gilmore testified about evidence sent by Fort Stockton Investigator, Jerry Joplin, to AID Laboratory for analysis and the results of tests on that evidence. 1993-02-24 RR p. 236-238. Gilmore, testified that, among other evidence, he received a metal can on November 11, 1991 from medical examiner, Dr. Robert Bux, and that can was identified as "ME 1578-91." 1993-02-24 RR p. 240-41. Gilmore was asked to analyze the contents for the presence of accelerants. 1993-02-24 RR p. 241. The contents of that can had articles of clothing and no traces of accelerants were found. 1993-02-24 RR p. 241. District Attorney Albert Valadez asked Gilmore on direct examination about the negative results his laboratory reported on the clothing samples:

Valadez: All right. Now, if I were to tell you, Mr. Gilmore, that a prior witness testified that an analysis was done in San Antonio. The results of that analysis on those same articles of clothes was positive for a class II accelerant but that those clothes were in a glass mason jar, would you be able to explain why, when your firm tested these same articles, they produced negative results?

Gilmore: Again, negative results can come from a number of reasons. Given the knowledge that they had been analyzed prior to our receiving them, it's very possible that the previous chemist stripped out all the trace accelerants that were there in his analysis.

- 5.1.5.16 There appears to be some discrepancy as to which clothing samples were tested by whom. Dr. Hurst claimed to have found clothing samples in a metal can that were tested by AID Laboratory and came back negative for accelerants. Joe Castorena supposedly tested clothing samples from a glass mason jar which came back positive for accelerants. District Attorney Albert Valadez suggested at the 1993 trial that the clothing samples from the glass mason jar and tested by Joe Castorena had been placed in a metal can and sent to AID Laboratory for testing, which resulted in a negative finding of accelerant because the testing by Castorena had stripped the samples of accelerant.
- 5.1.5.17 Dr. Gerald Hurst claimed that the chain of custody for the clothing remnants placed in the mason jar was broken because Joe Castorena back-dated a formal chain of custody report prepared in January 1993, which documented the transfer of a mason jar containing clothing remnants from Bexar County medical examiner, Dr. Robert Bux, to Bexar County Forensics Laboratory technician, Joe Castorena. The original chain of custody report documented the transfer from Bux to Castorena as occurring on 11/14/92, which would have been a year after the the original analysis of the evidence. According to Dr. Hurst, at the 1996 retrial on punishment Joe Castorena was questioned about the error in the date and Castorena submitted a "corrected" copy, explaining that he had mistyped the date when he was preparing his report for the the 1993 trial. Dr. Hurst alleged that Joe Castorena prepared a chain of custody report one month before the 1993 trial as a "prop" to bolster his statements regarding chain of custody. Dr. Hurst criticized the chain of custody report because it was not a document created contemporaneously with the transfer of evidence. Affidavit of Dr. Gerald L. Hurst, PhD, p. 18-19.
- 5.1.5.18 Dr. Hurst claimed that the mason jar containing clothing samples was not properly labeled and cannot be proven to have been prepared by Dr. Robert Bux when he was performing the autopsy of Bill Richardson. Furthermore, Dr. Hurst believed that the clothing samples found in the metal can and analyzed by AID Laboratory in Dallas could not have been taken from the samples found in the mason jar and tested by Joe Castorena because the mason jar is full and could not have accommodated more clothing. Thus, the State's theory that the samples tested by AID came up negative for accelerants because the sample had already been tested and stripped of accelerants is false. Dr. Hurst also noted that had a transfer of evidence from the mason jar to the metal can occurred then documentation of that transfer in the chain of custody documents would have to presented. Dr. Hurst claimed that Joe Castorena deliberately concealed knowledge of the can containing clothing samples. Affidavit of Dr. Gerald L. Hurst, PhD, p. 19-21.
- 5.1.5.19 Dr. Gerald Hurst challenged the State's theory that Sonia Cacy's singed hair and the soot covering her body were proof of that she committed arson. Dr. Hurst thought that it was more likely that Cacy singed her hair and got soot on her when she attempted to climb over Officer Curtis and re-enter the house when it was still burning. Dr. Hurst stated that



singeing hair is common when trying to enter a room which is flaming. Affidavit of Dr. Gerald L. Hurst, PhD, p. 29-30.

- 5.1.5.20 Dr. Gerald Hurst concluded that Sonia Cacy was convicted of the murder of Bill Richardson as a result of junk science. Dr. Hurst believed that the linchpin of the prosecution's case was the positive finding of accelerants on the clothing samples and because that positive finding is false, the case against Sonia Cacy falls apart. Affidavit of Dr. Gerald L. Hurst, PhD, p. 33.
- 5.1.6 Chromatography Analysis Report by **Richard Henderson, Ph.D.**, Arson Analysis, Instructor for the FBI
  - 5.1.6.1 Dr. Richard Henderson is a recognized expert in chemical analysis of fire debris from Florence, South Carolina and an instructor on fire investigation for the FBI. Dr. Henderson has participated in developing the ASTM/IAAI standards for the identification of ignitable liquids in fire debris and the ASTM Guide for Gas Chromatography/Mass Spectrometry (GC/MS).
  - 5.1.6.2 On June 23, 1996 Dr. Richard Henderson wrote Dr. Gerald Hurst a letter detailing his analysis of the GC/MS data from the clothing samples of Bill Richardson tested by Bexar County Forensic Laboratory. The chromatograms reviewed by Dr. Henderson were labeled "Case No. ME: 1578-91" and dated November 18, 1991. The analyst listed on the chromatograms was "Rodriguez, R." Dr. Henderson compared the clothing sample data to data from a gasoline standard run through the same instrument by "Rodriguez, R."
  - 5.1.6.3 Dr. Richard Henderson concluded that the gasoline standard was a typical standard which produced typical peaks in the chromatogram.
  - 5.1.6.4 Dr. Richard Henderson concluded that the clothing sample contained numerous pyrolysis products from a styrene-based polymer and a polyolefin material, which can be found in foams and plastics, respectively.
  - 5.1.6.5 Dr. Richard Henderson stated that pyrolysis of foams and plastics produce the same components found in gasoline. The ratio of the amounts of the various compounds is the crucial factor in identifying gasoline. Misidentification of gasoline in pyrolysis products is so common that warnings were placed in the ASTM E 1387-94 fire debris standards handbook.
  - 5.1.6.6 Dr. Richard Henderson concluded that the chromatograms of the fire debris in this case do not match the patterns for gasoline.
- 5.1.7 Letter by **Gary Gilmore**, AID Consulting Engineers President, Reporting Negative Results on Contents of Can
  - 5.1.7.1 AID Consulting Engineers in Dallas, Texas sent a letter to Investigator Jerry Joplin of the Fort Stockton Police Department on December 30, 1991 detailing the results of fire debris analysis they had performed at the request of Investigator Joplin.
  - 5.1.7.2 AID Consulting Engineers received five metal cans of fire debris and one aluminum cot frame from Investigator Jerry Joplin of the Fort Stockton

- Police Department on November 15, 1991. These cans were labeled 1, 1A, 2, 2A, and 3. The cot frame was labeled 4.
- 5.1.7.3 AID Consulting Engineers received on a later date another metal container labeled ME 1578-91 and dated “11-11-91” by Dr. Robert Bux.
  - 5.1.7.4 AID Consulting Engineers’ analysis of all six cans of fire debris evidence resulted in a negative finding for accelerants.
  - 5.1.7.5 AID Consulting Engineers’ analysis of the aluminum cot frame indicated that the melting point was 1000 degrees Fahrenheit and that there was no evidence that a person fell on the cot but rather that the cot collapsed as a result of the loss of structural support due to the high temperatures.
- 5.1.8 Report by **John Steve Kenley**, Volunteer Fireman and Part-time Fire Investigator
- 5.1.8.1 Fire Investigator Steve Kenley submitted an analysis of the November 10, 1991 fire on December 15, 1991.
  - 5.1.8.2 The majority of the analysis is spent explaining the dynamics of fire. Kenley uses the example of a cigarette dropped on the cushions of a chair. Kenley explains, among other phenomena, how flashover occurs.
  - 5.1.8.3 Fire Investigator Steve Kenley noted that living room ceiling had a three by twelve-foot open space where Bill Richardson had cut out the ceiling as leaks occurred. The open space in the ceiling was a few feet east of where Kenley says the fire originated. 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.4.
  - 5.1.8.4 Fire Investigator Steve Kenley described how he determined the origin of the fire by working his way from the least burned areas to the most severely burned areas. Kenley stated that the heat and smoke damage lines indicated that the fire originated in the living room. The burn patterns on the overturned rocking chair indicated that the fire in the living room originated to the west. The chair by the door and a metal end table next to the chair exhibited patterns which indicate a fire to the southwest of that furniture. A melted bulb in a floor lamp also indicated that the fire was to the southwest. The coffee table indicated a fire that spread to the north of it. Burns on the coffee table also indicated more fire toward the east end. The aluminum frame of the cot was “severely damaged, but appears to have collapsed in place.” Kenley stated that the area of the fire’s origin was the small aluminum cot. 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.4-5.
  - 5.1.8.5 Fire Investigator Steve Kenley narrowed down the cause of the fire to either “[c]areless use of smoking materials, or arson.” 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.5.
  - 5.1.8.6 Fire Investigator Steve Kenley stated that the living room exhibited extreme heat damage and observed that plastic had melted on the hallway walls as well as the dining room wall which was twenty feet away from the fire. However, Kenley also observed that the police officers were able to enter the house, which he stated would not have been possible had the heat that caused that degree of damage still been present in the living

room, and so the heat must have escaped through the vent in the ceiling. Kenley hypothesized that initially the fire burned so hot and fast that the vent could not handle all the heat and the heat rolled back down from the ceiling. But then, according to Kenley, just as quickly, the heat diminished and the remaining heat was able to escape through the vent in the ceiling. Kenley concluded from these observations that the fire's source must have burned itself up. 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.5.

- 5.1.8.7 Fire Investigator Steve Kenley observed that the joists exposed by the hole in the living room ceiling exhibited more charring on the south end. Kenley stated that there was not enough damage to the combustibles in that area (i.e., the bookcases or rocking chair) to account for the more extensive charring to the joists on the south end. The only severely burned item in that area was Bill Richardson. Kenley stated that "[t]here should not have been that much heat coming from the victim." 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.6.
- 5.1.8.8 Fire Investigator Steve Kenley did admit that the cot mattress could cause such damage. "The mattress was probably made of polyurethane foam rubber. And polyurethane does burn rapidly. It does produce very sooty smoke. It will produce a lot of heat, rapidly." 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.6.
- 5.1.8.9 Fire Investigator Steve Kenley discounted the idea of a cigarette causing the foam mattress to ignite because tests had shown that a cigarette dropped on a foam mattress will simply burn a hole in the mattress and not cause it to ignite. "Because a cigarette is such a low heat source, a cigarette dropped on the polyurethane foam, would not start a fire. Remember that combustibles have to be raised to temperatures where combustible vapors are given off. Then the heat source must be sufficient to ignite these vapors. Test [sic] have shown that a cigarette laid on a foam pad will just scar the surface of the foam. As the foam is heated, it draws away from the heat, leaving a shallow trench. No, the bedding material must be ignited. It will smolder for some time. During this smoldering period large amounts of carbon monoxide will be produced. Any person in the area would have been exposed to large amounts of carbon monoxide. In some cases they never wake up. The carbon monoxide level in the blood stream is so great that, that they die before the flaming begins. If a death is caused by smoking in bed, an autopsy will show a high level of carbon monoxide in the blood stream."
- 5.1.8.10 Fire Investigator Steve Kenley concluded that the degree of burning sustained by Bill Richardson, the autopsy report, the location of Bill Richardson's body, and the fact that the furniture was largely undisturbed, with the exception of the rocking chair, all point to a cause that was not accidental. 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.6.
- 5.1.8.11 Fire Investigator Steve Kenley stated that "Mr. Richardson died as the result of a very fast fire, one that ignited an area of his body, not a point on his clothing. Mr. Richardson died as the result of being covered with a

flammable liquid and ignited. Most likely his reaction to the fire caused a stimulated physical response sufficient to break the cot.” 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.7.

- 5.1.8.12 Fire Investigator Steve Kenley concluded that Sonia Cacy could not have become covered in soot and singed her hair merely by trying to get back into the burning house. Kenley stated that Cacy’s northeast corner bedroom had “very light smoke damage.” Kenley theorized that “the person who ignited the gasoline on Mr. Richardson, in the confined space of that living room would be covered with smoke. It is very reasonable to expect that the person who ignited the gasoline would have some singed hair.” 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.7.

#### 5.1.9 Fire Investigation Analysis by **Ken Gibson**, Arson Investigator

- 5.1.9.1 Fire Investigator Ken Gibson from Kemp, Texas has been in fire service for 38 years. He has been determining cause and origin of fires for the purpose of court testimony for the last sixteen years. Gibson investigated the fire scene in April of 1996 at the request of his colleague, Dr. Gerald Hurst.
- 5.1.9.2 Fire Investigator Ken Gibson found inconsistencies between the trial testimony he read and his investigation of the fire scene itself. One such inconsistency was that there was testimony that the floor of the house was wood, but upon inspection, Gibson found that the floor was concrete underneath the carpet. Gibson also pointed out that the State asserted that most of the burning on the floor was under the body of Bill Richardson but that when he looked at photographs from the fire scene most of the burning was beneath the cot. 1998-06-23 Letter from Ken Gibson to Gerald Garrett of the Board of Pardons & Parole. There was testimony in the 1993 trial in which prosecutor, Albert Valadez, stated in a cross-examination question to defense arson expert, Odessa Fire Captain Donald Dangerfield, that there were burn marks on the wood floor. Dangerfield who had inspected the fire scene did not correct Valadez. 1993-02-26 RR, Part I p. 80. Valadez also pointed to a picture of the fire scene during his cross-examination of Dangerfield and referred to the wood floor. Dangerfield repeated Valadez’s statement about the wood floor. 1993-02-26 RR, Part I p. 83. However, on redirect defense attorney, Tony Chavez, asks Dangerfield what kind of floor was underneath the carpet padding when he inspected it and Dangerfield states that the floor is concrete. 1993-02-26 RR, Part I p. 138. During redirect examination, defense counsel also enters the carpet padding from the burned house into evidence and Dangerfield shows how the padding beneath the Bill Richardson’s body and beneath the cot was not even completely burned through; thus, refuting the State’s theory that the most severe burning took place on Bill Richardson’s body due to accelerants. 1993-02-26 RR, Part I p. 138-39. In his closing statement, defense attorney, Tony Chavez, again rebuts the assertions about the severe charring of the wood floor underneath Bill Richardson’s body and points out the fact that the padding was not burned through and the floor is concrete not wood. 1993-02-26 RR, Part II p. 37-39.

- 5.1.9.3 Fire Investigator Ken Gibson also pointed out that testimony at trial indicated that only flammable liquid could cause the amount of burning that occurred at the fire scene, but in fact the polyurethane mattress could have also caused that degree of burning.
- 5.1.9.4 Fire Investigator Ken Gibson disagreed that only flammable liquid could cause the severe burning of Bill Richardson's body and observed that if the heavy drapes were burning and fell on Bill Richardson's body then severe burns could also result.
- 5.1.9.5 Fire Investigator Ken Gibson theorized that if Sonia Cacy had splashed gasoline on Bill Richardson and lit him on fire, then her synthetic silk nightgown would have had signs of melting because that material easily melts and burns, but there was no soot or signs of burning on her nightgown.
- 5.1.9.6 Fire Investigator Ken Gibson believed the arson investigation could have been challenged at trial because of the many errors that the State's experts made in examining the fire scene.

#### 5.1.10 Joe Castorena Memo Describing Contents of Can

- 5.1.10.1 Handwritten note from Joe Castorena dated December 9, 1991 in which Castorena writes: "As per our phone conversation of today's date, I am sending you the remainder of the undergarments on case ME 1578-91 as requested by officer Jerry Joplin, Fort Stockton."
- 5.1.10.2 Assistant Chief Toxicologist for Bexar County Joe Castorena testified in the 1996 retrial on punishment that he was unaware that clothing remnants from Bill Richardson had been sent to AID Laboratories for testing. 1996-04-16 RR p. 85-86.

#### 5.1.11 Bill Richardson's Last Will

- 5.1.11.1 Holographic will dated October 13, 1991 in which Bill Richardson left all assets to his "niece also step daughter Sonia - J- Cacy."
- 5.1.11.2 A holographic will is a handwritten will that, generally speaking, is a valid, legal instrument under the Texas Estates Code. See TEX. ESTATES CODE § 251.052.
- 5.1.11.3 No evidence was presented that showed Sonia Cacy received any proceeds from Bill Richardson's will. According to the Estates Code, "No conviction shall work corruption of blood or forfeiture of estate." TEX. ESTATES C§ 201.058. However, it should be noted that: "Texas courts have taken the position that the law will impose a constructive trust upon the property of a deceased which passed either by inheritance or by will if the beneficiary wilfully and wrongfully caused the death of the deceased." *Bounds v. Caudle*, 560 S.W.2d 925, 928 (Tex. 1977).
- 5.1.11.4 Sonia Cacy testified that Defense Exhibit 16A in her 1996 retrial on punishment was the funeral home receipt from Bill Richardson's funeral. Cacy testified that she paid the funeral home bill with the balance of Bill Richardson's cash assets and then paid the remainder out of her own money. 4-18-96 RR Morning Session p. 12-13).

5.1.12 Letter Concerning History of Bill Richardson by Joy Grant, Richardson's Niece

- 5.1.12.1 Cousin Joy Grant described Bill Richardson as very careless with his smoking materials and fire in general.

5.1.13 22nd District Court's Findings of Fact re: Chief of Physical Evidence at Bexar County Lab, Fred Zain

- 5.1.13.1 On December 10, 1993 the 22<sup>nd</sup> District Court of Comal County found that the forensic evidence submitted in another case by Fred Zain, Chief Serologist for the Bexar County Forensic Science Center, was not reliable and the testimony of Fred Zain was not credible. Sonia Cacy's defense team presented the findings in this Comal County case to show that forensic work by Chief Serologist Fred Zain should not be relied on. Zain's testimony in Sonia Cacy's 1993 trial was minimal but should be considered as one more piece of unreliable evidence submitted by the State.
- 5.1.13.2 Chief Serologist Fred Zain testified in 1993 that he received evidence from the Fort Stockton Police Department on November 14, 1991. Zain testified that he was instructed to examine the evidence for the presence of blood and body fluid and any other types of evidence that might be pertinent to the investigation. 1993-02-24 RR p. 217-18.
- 5.1.13.3 Chief Serologist Fred Zain testified that the fingernail scrapings of Sonia Cacy came up negative for any blood. 1993-02-24 RR p. 218-19.
- 5.1.13.4 Chief Serologist Fred Zain testified that blood stains containing genetic markers for Sonia Cacy were found on the carpet and curtain samples submitted to the Bexar County Forensic Lab for testing. 1993-02-24 RR p. 219.
- 5.1.13.5 Chief Serologist Fred Zain was not cross-examined by defense counsel in the 1993 trial and did not testify at all in the 1996 retrial on punishment.
- 5.1.13.6 Chief Serologist Fred Zain worked for Bexar County Forensic Science Center from 1989 until 1993 when an investigation in West Virginia revealed that Zain had fabricated evidence in dozens of rape and murder cases in West Virginia. Zain's work at Bexar County Forensic Science Center was also called into question and false evidence given by Zain led to the payment of at least \$850,000 to two men in Texas. In 1997, Zain avoided a perjury trial in Texas because the statute of limitations had expired. Zain was awaiting retrial in West Virginia on fraud charges when he died of cancer at the age of 52. Associated Press, "Ex-W.Va. Police Chemist Fred Zain Dies," MIDLAND REPORTER-TELEGRAM (Dec. 3, 2002, 12:00 a.m.) available at [http://www.mrt.com/import/article\\_39cba627-a972-5065-93a3-671b1f5b2a0c.html](http://www.mrt.com/import/article_39cba627-a972-5065-93a3-671b1f5b2a0c.html).

5.1.14 Independent Review of Bexar Co. Forensic Lab by Southwestern Institute of Forensic Sciences

- 5.1.14.1 Southwestern Institute of Forensic Sciences in Dallas, Texas sent Dr. Vincent Di Maio a letter on July 15, 1993 with six observations regarding their review of Bexar County Forensic Science Center's accuracy in investigation. None of the observations specifically mention the Sonia Cacy case, but Fred Zain, a minor witness in Sonia Cacy's 1993 trial, is

mentioned. In the letter Fred Zain's work is only mentioned in regards to another case. However, the Institute does observe that the Forensic Lab could be more careful and diligent about notations and listing results of testing.

#### 5.1.15 Article on Solid Gasoline, Fire Journal, May/June 1998

- 5.1.15.1 "In the polyester era of 30 years ago, flame retardant grades [of chemical additives] were available, and when polyether technology came along, flame-retardants with the chemistry of chlorine, bromine, and phosphorus were incorporated into the [polyurethane] foam. Without a doubt, these materials made it more difficult for relatively small ignition sources to ignite foams." Gordon Damant, *Should polyurethane foam be banned: a view from California*, 82 Fire Journal 68, 70 (May/June 1988).
- 5.1.15.2 "While it is true that most polyurethanes do not smolder readily when ignited by a cigarette during component testing, most urethanes will smolder quite vigorously when evaluated under 'real-life' conditions—that is, when they are used in combination with certain textile fabrics." Gordon Damant, *Should polyurethane foam be banned: a view from California*, 82 Fire Journal 68, 72 (May/June 1988).

## 5.2 State Fire Marshal's Office Findings

### 5.2.1 The Complaint

- 5.2.1.1 On September 10, 2010 Sonia Cacy filed a complaint with the Texas Forensic Science Commission. This complaint was dismissed for lack of authority to investigate.
- 5.2.1.2 Although Sonia Cacy filed her complaint with the Texas Forensic Science Commission (FSC), the complaint was actually investigated by the Scientific Advisory Workgroup (SAW) of the State Fire Marshal's Office (SFMO). SAW is a collaboration between the FSC and the SFMO. The FSC is a commission created by the Texas Legislature in May of 2005. The SFMO is a division of the Texas Department of Insurance. SAW was created in 2011 to "review previous arson cases and to provide feedback and expertise on current cases. The cases under review by the SAW are limited to SFMO-internal cases and cases submitted by the Innocence Project of Texas." See STATE FIRE MARSHAL OFFICE Home Page on TX DEPT. OF INS. Website available at <http://www.tdi.texas.gov/fire/fmfsc.html>.
- 5.2.1.3 In her complaint which was investigated by the SFMO, Sonia Cacy claimed that the Assistant Chief Toxicologist of the Bexar County Medical Examiner/Forensic Science Center misinterpreted the gas chromatography/mass spectrometry test performed on Bill Richardson's clothing.
- 5.2.1.4 Sonia Cacy provided the affidavits of **10 independent experts that determined that no gasoline was found on the clothing of Bill Richardson**. The following experts submitted affidavits attesting that no gasoline was found on Bill Richardson's clothing:

**5.2.1.4.1 Dr. Richard Henderson** of Southeastern Research Labs

5.2.1.4.1.1 Dr. Richard Henderson from Florence, South Carolina has a Ph.D. in chemistry and has been consulting on fire investigations since 1980. Henderson has helped developed the ASTM standards for fire investigation.

5.2.1.4.1.2 Dr. Richard Henderson reviewed the gas chromatograms from the clothing samples tested on November 10, 1991. Dr. Henderson noted that the chromatograms were conducted on an accelerated time scale, which causes the peaks to be condensed and increases possibility for interpretation error. Dr. Henderson found numerous pyrolysis products present in the sample data, which are probably the result of contact with the polyurethane foam mattress on which Bill Richardson slept. Pyrolysis products share many similar components with gasoline. The problem of misidentifying pyrolysis products with gasoline was indicated as early as the ASTM E 1387. Dr. Henderson found that C<sub>3</sub> alkyl benzene four-peak group was not present, the ratios of the various components differ from those of gasoline, and there are missing or diminished components with patterns.

5.2.1.4.1.3 Dr. Richard Henderson attacked the reliability of Assistant Chief Toxicologist Joe Castorena's interpretation of the gas chromatograms. Dr. Henderson stated that the testing instruments shouldn't have been set to include cycloalkanes, anthracenes, and pristine/phytane ions because they have no value in identifying gasoline residues in fire debris samples. However, Dr. Henderson does mention the pristine/phytane ions can be used to identify heavy petroleum distillates.

5.2.1.4.1.4 Dr. Richard Henderson stated that "[a]t trial, any number of highly-qualified fire debris chemists could have identified the obvious discrepancies between the patterns for the sample and those for gasoline. Dr. Henderson also stated in his affidavit dated May 15, 2012 that he would have been available to testify in February 1993 but he was never contacted.

**5.2.1.4.2 Laurel Mason** of Analytical Forensic Associates, Inc.

5.2.1.4.2.1 Laurel Mason nee Waters is a forensic scientist from Norcross, Georgia who has specialized in arson investigation since 1981.

5.2.1.4.2.2 Laurel Mason analyzed gas chromatograms sent to her and concluded that the clothing sample and the gasoline standard were not consistent, indicating pyrolysis products.

5.2.1.4.2.3 Laurel Mason stated in her affidavit dated May 21, 2012 that she would have been available to testify in February 1993 but she was never contacted.

**5.2.1.4.3 Dr. John DeHaan** of Fire-Ex Forensics, Inc.

5.2.1.4.3.1 Dr. John DeHaan from Vallejo, California has a Ph.D. in chemistry and has been a criminalist since 1970 when he worked at the Alameda County, CA Sheriff's Office.



- 5.2.1.4.3.2 At the request of Dr. Richard Henderson, Dr. John DeHaan compared the gas chromatography/mass spectrometry data for Bill Richardson's pants and underwear samples, labeled "ME: 1578-91" and dated November 18, 1991, to the gasoline standard run through the same instrument on the same day.
- 5.2.1.4.3.3 Dr. John DeHaan stated that the clothing sample did not demonstrate the presence of gasoline. Dr. DeHaan observed that toluene, xylene, and ethyl benzene are present but the higher alkyl benzenes were not present in the proportions usually found in gasoline. He also noted that alkanes were present but not in the distribution found in gasoline. Dr. DeHaan concluded that the data show the presence of pyrolysis products not gasoline, an error warned against in the ASTM E 1387.
- 5.2.1.4.3.4 Dr. John DeHaan stated that had he been asked he would have been available to testify as an arson expert in 1993 at the trial of Sonia Cacy.
- 5.2.1.4.3.5 Dr. John DeHaan recorded his conclusions in a letter to a member of Sonia Cacy's defense team, Eric Rabbanian, dated November 29, 2001.
- 5.2.1.4.4 **John Lentini** of Applied Technical Services, Inc.
  - 5.2.1.4.4.1 John Lentini from Marietta, Georgia has been doing chemical analysis of fire debris since the late seventies and holds certifications from the International Association of Arson Investigators and the National Association of Fire Investigators.
  - 5.2.1.4.4.2 Rachel Burstein of Dateline NBC asked John Lentini on November 2, 1998 to review the gas chromatography/mass spectrometry data and the fire analysis report of Steve Kenley in Sonia Cacy's case.
  - 5.2.1.4.4.3 In a letter to Rachel Burstein dated November 11, 1998, John Lentini criticized Steve Kenley's December 15, 1991 fire analysis report to the Fort Stockton Police Department. Lentini made the following criticisms of Kenley's report:
    - 5.2.1.4.4.3.1 According to Lentini, Kenley's report "is a lot of conclusions but almost no data."
    - 5.2.1.4.4.3.2 According to Lentini, Kenley stated that the room burned very hot and fast and implied that a cigarette could not burn that hot or fast. Lentini stated that accelerated fires burn at the same temperatures that unaccelerated fires burn, but accelerated fires burn at a faster rate. Based on this, Lentini believed that Kenley's conclusions that the fire was hotter than normal and a cigarette could not produce such a hot and fast fire were invalid. However, Lentini did not provide evidence for his assertion that the fire did not burn at an accelerated rate. Lentini only stated that burns caused by a cigarette and by an accelerant may burn at the same temperature.

- 5.2.1.4.4.3.3 Lentini also criticized Kenley's statement that smoldering fires produce large amounts of carbon monoxide. Lentini stated that smoldering, slow-moving fires will produce small quantities of carbon monoxide. However, Lentini then goes on to note that "[o]nce a large piece of furniture such as a polyurethane couch is ignited, large quantities of carbon monoxide are produced." There was a couch and a polyurethane mattress which burned during the fire. Lentini's statements seem to confirm Kenley's statements about large amounts of carbon monoxide. Kenley made the statement "[d]uring this smoldering period large amounts of carbon monoxide will be produced." 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.6. This statement was made when discussing a hypothetical in which a burning cigarette was dropped on a polyurethane mattress. Kenley stated that the mattress itself would resist ignition but that the bedding materials would smolder, which is in line with what Lentini said about large combustibles (fuel for the fire) producing large amounts of carbon monoxide.
- 5.2.1.4.4.3.4 Lentini's most scathing criticism was in regards to the singeing of Sonia Cacy's hair: "Mr. Kenley's inference that Sonia Cacy's hair somehow proves she was exposed to a gasoline fire is one of the more pathetic inferences that I have ever had the misfortune to read." However, Lentini did not explain this criticism.
- 5.2.1.4.4.3.5 Lentini stated that Kenley's belief that fire behaved in accordance with the Standard Time/Temperature Curve developed in 1918 was misguided and out of date. Kenley did state, "The standard time temperature curve, developed in 1918, states that ceiling temperatures of 1000 degrees can be expected within five minutes of flaming combustion." 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.3. However, Lentini does not explain what is wrong with Kenley's statement. In its 1991 report AID Laboratories determined that the aluminum cot frame Police Investigator Jerry Joplin sent them for testing would melt at 1000 degrees Fahrenheit and that the cot collapsed due to structural instability caused by the heat of the fire. Knowing that heat rises, it is not unreasonable to believe that the ceiling temperature reached 1000 degrees Fahrenheit. Lentini may be correct that Kenley relied on outdated and irrelevant studies but he failed to offer an alternative method for determining the rate of burning or the temperature of the fire. Lentini also did not explain why accidental or intentional fires don't follow the Standard Time/Temperature Curve.
- 5.2.1.4.4.3.6 Lentini stated "Mr. Kenley is also under the misconception that accidental fires burn slowly while accelerated fires

burn quickly.” It is easy to see why Kenley might believe this because Lentini shares the same belief which he stated in the previous paragraph of the same letter: “Actually, accelerated fires burn at exactly the same temperatures as unaccelerated fires, they just burn faster.” However, Lentini noted that an accidental fire involving a sofa may burn more rapidly because a sofa provides the fire with ready fuel. Lentini observed that this was not widely known in 1991. In his December 15, 1991 fire analysis report to the Fort Stockton Police Department, Steve Kenley wrote “combustibles react differently. One may burn rapidly, producing a lot of heat. Another may burn more slowly, producing a lot of smoke. Some ignite easily, while others will ignite at very high temperatures.” 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.3. Kenley seemed to have some understanding that different combustibles have different burning rates and burn temperatures.

5.2.1.4.4.3.7 Lentini also stated that Kenley possibly did not understand the role of radiated heat in the spread of fire as this was also not widely known. Kenley wrote, “[a]s the ceiling temperature reaches 1000 degrees, the radiated heat will, at some point, cause the remaining combustibles in the space to ignite.” 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.3. In fact, Kenley described radiated heat and how it can cause the ignition of combustibles at several points in his report.

5.2.1.4.4.3.8 Kenley asks in his report: “How can you have this searing heat and then have it diminish?” 1991-12-15 Fire Analysis of Steve Kenley FSPD #91-004905-1 p.5. Kenley focused on the fact that the heat from the fire diminished rapidly and attributed the diminishment to the fact that the fuel for the fire had burned itself up. Lentini did not address the rapid diminishment of the heat in the living room.

5.2.1.4.4.4 John Lentini addressed the analysis of the gas chromatography/mass spectrometry (GC/MS) data for clothing samples tested on November 18, 1991 in a separate report to Rachel Burstein of Dateline NBC dated November 11, 1998.

5.2.1.4.4.4.1 Lentini stated that the GC/MS data does not support a conclusion that the clothing sample contains gasoline.

5.2.1.4.4.4.2 Lentini stated that the toluene and xylene peaks were present in higher concentrations than the C<sub>3</sub> alkyl benzene peaks in the clothing sample gas chromatogram which suggested fresh gasoline not the weathered gasoline that would be expected after exposure to a fire.

5.2.1.4.4.4.3 Lentini found that the clothing sample had strong hydrocarbon peaks but strong hydrocarbon peaks only occur in gasoline that has been weathered more than 90%. Lentini also found that the concentration of naphthalene

was 100 times more abundant in the clothing sample than the gasoline standard with which it was compared. The high concentration of hydrocarbons and naphthalene suggest that if gasoline is present it is highly evaporated. Lentini resolved this conflict in data by concluding that pyrolysis products rather than gasoline were present.

5.2.1.4.4.4.4 Lentini criticized the use of different time scales for the sample and the standard because it makes comparison difficult. He also criticized the use of two different sets of operating parameters for the full scan mode and the selected ion monitoring modes of data collection. Lentini stated that the psuedocumene peaks at different times if different operating operating parameters are used.

5.2.1.4.4.4.5 Lentini concluded that while the clothing sample contained some of the compounds found in gasoline, the relative concentrations did not demonstrate clearly that gasoline was present.

5.2.1.4.4.5 John Lentini signed an affidavit on May 24, 2012 stating that had he been asked he could have testified at the 1993 trial of Sonia Cacy as an arson expert.

5.2.1.4.5 **Dr. Andrew Armstrong** of Armstrong Forensic Laboratories

5.2.1.4.5.1 Dr. Andrew Armstrong from Arlington, Texas is a fellow at the American Board Board of Criminalistics and is qualified to analyze gas chromatography/mass spectrometry(GC/MS) data.

5.2.1.4.5.2 Dr. Andrew Armstrong wrote a letter to Rachel Burstein of Dateline NBC dated November 24, 1998 regarding the GC/MS data in Sonia Cacy's case.

5.2.1.4.5.3 Dr. Andrew Armstrong concluded that gasoline was not present in the samples and the data show pyrolysis products.

5.2.1.4.5.4 Dr. Andrew Armstrong noted that the level of aromatic hydrocarbons was extremely low and were probably the result of pyrolysis products.

5.2.1.4.5.5 Dr. Andrew Armstrong also noted that the labels on the supplied charts were inconsistent.

5.2.1.4.6 **Dirk Hedglin** of Great Lakes Analytical

5.2.1.4.6.1 Dirk Hedglin from St. Clair Shores, Michigan worked with the Bureau of Alcohol Tobacco & Firearms from 1988 to 1996 as a forensic scientist specializing in fire analysis.

5.2.1.4.6.2 Dirk Hedglin wrote a letter to a member of Sonia Cacy's defense team, Eric Rabbanian, on December 17, 2001 in response to Dr. Richard Henderson's request that Hedglin review the gas chromatography/mass spectrometry(GC/MS) in Sonia Cacy's case.

5.2.1.4.6.3 Dirk Hedglin found the data for the clothing sample labeled "1578-91 pants/underwear" to be negative for the presence of ignitable liquids. Hedglin stated that "[t]here are too many compounds missing and of the compounds present the peak-to-

peak ratios are incorrect for the identification of gasoline.” Hedglin also stated that the peaks and patterns were consistent with pyrolysis products.

**5.2.1.4.7 Dennis Akin** of AK Analytical Forensic & Scientific Investigations

- 5.2.1.4.7.1 Dennis Akin from Hendersonville, Tennessee was formerly the Chief Forensic Chemist for the State of Tennessee, a fellow of the American Board of Criminalistics, and a contributor to the ASTM standards for criminalistics.
- 5.2.1.4.7.2 Dennis Akin wrote a report for a member of Sonia Cacy’s defense team, Eric Rabbanian, on December 20, 2001 in response to Dr. Richard Henderson’s request that Akin review the gas chromatography/mass spectrometry(GC/MS) in Sonia Cacy’s case.
- 5.2.1.4.7.3 Dennis Akin concluded that “[f]rom the evaluation of this data no determination can be made as to the presence, or absence of gasoline.” Akin noted inconsistencies in the data and the possible presence of pyrolysis products.

**5.2.1.4.8 Anthony Cafe** of T.C. Forensic Scientific Services

- 5.2.1.4.8.1 Anthony Cafe from Sydney, Australia has a masters’ degree in Applied Science from the University of Technology in Sydney, Australia and has been a fire scene forensic examiner since 1983.
- 5.2.1.4.8.2 Anthony Cafe wrote a letter to Dr. Gerald Hurst on February 3, 1997 in response to Hurst’s request to review the gas chromatography/mass spectrometry(GC/MS) in Sonia Cacy’s case.
- 5.2.1.4.8.3 Anthony Cafe noted that the gasoline standard sample tested by R. Rodriguez on November 18, 1991 was run twice: once in SCAN mode at 2:57 p.m. and once in SIM mode at 3:24 p.m. Cafe observed that “the retention times in these two runs do not match which is unusual for identical samples which are run 27 minutes apart, presumably on the same machine. Also the major peak in the five grouped trimethyl benzene peaks emerges at 4.1 minutes in the 3:24 p.m. run and at 3.8 minutes in the 2:57 p.m. run.” Cafe commented that “normal practice would be to run all samples under the same conditions which should result in all the retention times being the same.” 1997-02-03 Report of TC Forensic by Anthony Cafe p. 2.
- 5.2.1.4.8.4 Anthony Cafe reviewed the data from the clothing sample tested by R. Rodriguez on November 18, 1991, which was run twice: once at 1:08 p.m. and once at 2:22 p.m. Cafe was perplexed because the graphs produced by the two runs, which should have been identical, were very different. Cafe also noted that there was no key indicating which ions were used to identify the functional groups. Cafe believed that the 1:08 p.m. run of the clothing sample was compared to the 3:24 p.m. (SIM mode) of the gasoline standard sample and that the 2:22 p.m. run of the clothing sample was compared to the 2:57 p.m.

(SCAN mode) of the gasoline standard sample. The 3:24/1:08 samples were compared to identify alkyl benzenes and the 2:57/2:22 samples were compared to identify methyl/dimethyl benzenes, trimethyl benzenes, and tetramethyl benzenes. 1997-02-03 Report of TC Forensic by Anthony Cafe p. 2-3.

- 5.2.1.4.8.5 Anthony Cafe compared the clothing and gasoline standard samples' alkyl benzene graphs and found that methyl benzene, dimethyl benzene, and trimethyl benzene are present in the clothing sample but not in ratios similar to that of the gasoline standard sample. For this reason, Cafe concluded that there was "no clear evidence to indicate the presence of gasoline in the [clothing] sample." 1997-02-03 Report of TC Forensic by Anthony Cafe p. 3.
- 5.2.1.4.8.6 Anthony Cafe compared the clothing and gasoline standard samples' graphs for methyl/dimethyl benzenes and found that methyl benzenes and dimethyl benzenes were present but the dimethyl benzenes were in different ratios than those found in gasoline so there was "no clear evidence to indicate the possible presence of gasoline in the [clothing] sample." 1997-02-03 Report of TC Forensic by Anthony Cafe p. 4.
- 5.2.1.4.8.7 Anthony Cafe compared the clothing and gasoline standard samples' graphs for trimethyl benzenes and found that trimethyl benzenes were present in the sample in similar ratios to those found in gasoline so "this graph indicates the possible presence of gasoline." 1997-02-03 Report of TC Forensic by Anthony Cafe p. 4.
- 5.2.1.4.8.8 Anthony Cafe compared the clothing and gasoline standard samples' graphs for tetramethyl benzene and found that tetramethyl benzenes were present in the sample in similar ratios to those found in gasoline so "this graph indicates the possible presence of gasoline." However, Cafe commented that tetramethyl benzenes are minor components of gasoline. 1997-02-03 Report of TC Forensic by Anthony Cafe p. 4.
- 5.2.1.4.8.9 Anthony Cafe compared the clothing and gasoline standard samples' graphs for indanes and found that these components were found in similar ratios between the samples and indicated the possible presence of gasoline. 1997-02-03 Report of TC Forensic by Anthony Cafe p. 4.
- 5.2.1.4.8.10 Anthony Cafe compared the clothing and gasoline standard samples' graphs for naphthalenes and found that the naphthalene peaks were rather small and were not good evidence of the presence of gasoline, but the major methyl/ethyl and dimethyl naphthalene peaks found in gasoline were present and indicated the possible presence of gasoline. However, Cafe noted that naphthalenes are mirror constituents of gasoline and not good indicators of the presence of gasoline. Also the scans for the different naphthalenes were run under different conditions, which also goes to the unreliability of the

- analysis. 1997-02-03 Report of TC Forensic by Anthony Cafe p. 4-5.
- 5.2.1.4.8.11 Anthony Cafe compared the clothing and gasoline standard samples' graphs for alkanes and cycloalkanes and found that many of the alkane peaks found in gasoline were missing indicating that the clothing sample did not contain gasoline or that the alkanes if present had evaporated. The alkane scan showed a series of peaks that could have indicated kerosene but a kerosene standard was not run for comparison. The scan showed no cycloalkanes so there was no evidence to suggest the presence of gasoline. Cafe commented that while alkanes are a major component of gasoline when it is fresh, alkanes evaporate and can only be found in trace amounts in weathered gasoline. Thus, alkanes are not a good indicator of the presence or absence of gasoline. 1997-02-03 Report of TC Forensic by Anthony Cafe p. 5.
- 5.2.1.4.8.12 Anthony Cafe compared the clothing and gasoline standard samples' graphs for anthracenes and found that there were no anthracenes so there was "no evidence to indicate the possible presence of gasoline." 1997-02-03 Report of TC Forensic by Anthony Cafe p. 6.
- 5.2.1.4.8.13 Anthony Cafe compared the clothing and gasoline standard samples' graphs for pristanes/phytanes and found that there were no pristanes/phytanes so there was "no evidence to indicate the possible presence of gasoline." 1997-02-03 Report of TC Forensic by Anthony Cafe p. 6.
- 5.2.1.4.8.14 Anthony Cafe compared the clothing and gasoline standard samples' graphs for hydrocarbons and found that many gasoline hydrocarbons peaks were missing from the clothing sample so there was "no evidence to indicate the possible presence of gasoline." Cafe noted that "it could not be determined with certainty which gasoline [standard sample] the hydrocarbons were extracted from." 1997-02-03 Report of TC Forensic by Anthony Cafe p. 6.
- 5.2.1.4.8.15 Anthony Cafe concluded that although some indicators of the possible presence of gasoline were detectable, those indicators were weak at best. The scan data for the most important indicators of the presence of gasoline did not provide evidence for the possible presence of gasoline. Cafe criticized the analysis procedure for its lack of consistency which can lead to misinterpretation of the data. 1997-02-03 Report of TC Forensic by Anthony Cafe p. 6-7.
- 5.2.1.4.8.16 Anthony Cafe suggested that one possible explanation for the indicators of trace amounts of gasoline in the scan data is contamination of the sample when the body was at the fire scene or in the laboratory. Cafe also suggested that Bill Richardson could have innocently come into contact with a trace amount of gasoline before the fire. 1997-02-03 Report of TC Forensic by Anthony Cafe p. 6-7.

- 5.2.1.4.8.17 Anthony Cafe emphasized that physical evidence of the possible presence of accelerant would be extremely important in determining whether accelerant was used to ignite a fire in cases when the GC/MS data showed such small traces of accelerant. Cafe mentioned the following types of physical evidence that might indicate the presence of accelerants: “petroleum type odours, a container used to transport an accelerant, a rapid growth of fire inconsistent with the naturally available fuel, overhead damage inconsistent with the naturally available fuel and localised burn patterns found to surfaces such as floors which show the spread pattern of the accelerant.” 1997-02-03 Report of TC Forensic by Anthony Cafe p. 8.
- 5.2.1.4.8.18 Anthony Cafe noted that synthetic materials normally found in homes are manufactured from petroleum compounds like those found in gasoline. Cafe observed that when those synthetic materials are broken down by fire (pyrolysis products) they resemble the same compounds found in gasoline. “The possibility that the pants/underwear sample analysed from the fire did not contain gasoline but merely contained a complex mixture of synthetics should be seriously considered because of the inconclusiveness of the graphs, the complexity of the graphs and the very small amount of gasoline which is being considered.” 1997-02-03 Report of TC Forensic by Anthony Cafe p. 8-9.
- 5.2.1.4.9 **Ken Habben** of Carolina Consulting Labs
- 5.2.1.4.9.1 Ken Habben from Columbia, South Carolina was the Chief Toxicologist for the South Carolina Law Enforcement Division from 1976 until 1997 and a fellow of the Forensic Toxicologist Certification Board.
- 5.2.1.4.9.2 Ken Habben wrote a letter to a member of Sonia Cacy’s defense team, Eric Rabbanian, on December 6, 2001 in response to a request that Habben review the autopsy report of Bill Richardson and the gas chromatography/mass spectrometry (GC/MS) in Sonia Cacy’s case.
- 5.2.1.4.9.3 Ken Habben’s opinion was as follows: “The gasoline standards used to base the opinion that they were a match to the fire debris from the scene cannot validate that there was any gasoline present. Most of the ions appear to be background, where others could be from the burning of the clothes or from the mattress. In other words, I feel that this is a false positive for gasoline and should have been sent out as a negative.”
- 5.2.1.4.10 **Craig Balliet** of Barker & Herbert Analytical Laboratories, Inc.
- 5.2.1.4.10.1 Craig Balliet from New Haven, Indiana is a chemist who has managed the forensic chemistry lab at Barker & Herbert Analytical Laboratories since 1983 and frequent lecturer and writer on fire debris analysis topics.
- 5.2.1.4.10.2 Craig Balliet wrote a letter to a member of Sonia Cacy’s defense team, Eric Rabbanian, on December 21, 2001 in response to Dr.



Richard Henderson's request that Balliet review the gas chromatography/mass spectrometry (GC/MS) in Sonia Cacy's case.

5.2.1.4.10.3 Craig Balliet stated that it was his "professional opinion that there is no evidence to support the conclusion by the analyst that gasoline or gasoline residue is (or was) present in the sample." Balliet stated that the peaks for alkyl benzenes, naphthalenes, and alkanes in the sample did not have the proper ratios necessary for gasoline to be present. Balliet referenced the ASTM E 1387 and the ASTM E 1618 as warning against the misidentification of pyrolysis products as gasoline.

5.2.1.4.10.4 Craig Balliet signed an affidavit dated May 15, 2012 that affirmed that Balliet would have been available if asked to testify as an expert witness in Sonia Cacy's trial.

5.2.1.5 The Texas Forensic Science Commission complaint included the same documents given to the Board of Pardons and Paroles in 1998 as well as additional expert affidavits supporting a negative gasoline finding on the clothing and excerpts of scientific testimony given at Cacy's trials and the supporting exhibits. The Board of Pardons and Paroles granted Sonia Cacy parole after 6 years into her 99-year sentence.

## 5.2.2 Authority of Scientific Advisory Workgroup of the State Fire Marshal's Office

5.2.2.1 Pecos County District Attorney Rod Ponton asked the Attorney General's Office (AG) in October of 2013 to give an opinion on the authority of the Science Advisory Workgroup (SAW) of the State Fire Marshal's Office (SFMO) and any jurisdictional limitations. Specifically, Ponton asked the AG to construe SAW's authority and jurisdiction in light of Texas Code of Criminal Procedure, Article 38.01 and AG Opinion No. GA-0866. Supplemental Writ Exhibits, 2014-04-04 Attorney General Opinion, GA-1048, p. 1.

5.2.2.2 Government Code Chapter 417 governs the SFMO. Section 417.004(b) grants the SFMO the authority to investigate arson in the state of Texas. Section 417.007(e) directs the SFMO to provide an appropriate district attorney any evidence which may be sufficient to charge a person with certain crimes. Although Chapter 417 is silent with regard to closed arson cases, the AG found that Section 417.004(b)-(d) granted the SFMO with the authority to do research into improvement of fire safety and arson investigation. Supplemental Writ Exhibits, 2014-04-04 Attorney General Opinion, GA-1048, p. 2-3.

5.2.2.3 The Attorney General opined that both Article 38.01 and AG Opinion No. GA-0866 pertained to the Texas Forensic Science Commission's authority and jurisdiction and do not address the authority of SAW or SFMO. Supplemental Writ Exhibits, 2014-04-04 Attorney General Opinion, GA-1048, p. 2 & 3.

5.2.2.4 The Attorney General stated that SFMO's authority was granted under Chapter 417 of the Government Code, which is independent from that of the Forensic Science Commission and the authority granted to that agency by Article 38.01 and any limitations on the Commission's authority

delineated in the AG's Opinion No. GA-0866. Supplemental Writ Exhibits, 2014-04-04 Attorney General Opinion, GA-1048, p. 3.

### 5.2.3 Findings of the Scientific Advisory Workgroup of the State Fire Marshal's Office

- 5.2.3.1 State Fire Marshal Chris Connealy sent a letter to District Attorney Rod Ponton on August 20, 2013, summarizing the findings of the Science Advisory Workgroup regarding the Sonia Cacy arson case. In that letter Connealy stated: "The interpretations of the gas chromatographic data regarding the alleged identification of gasoline by the Bexar County Forensic Science Center are not supported by present-day laboratory analytical standards. Therefore, the cause of the fire should be listed as undetermined." Supplemental Writ Exhibits, 2013-08-20 Letter from State Fire Marshal Chris Connealy, p.2.
- 5.2.3.2 State Fire Marshal Chris Connealy sent a letter to District Attorney Rod Ponton on March 21, 2014 in response to questions Ponton had regarding the Science Advisory Workgroup's 2013 findings. In that letter Connealy states: "the standards used by Dr. DeHaan and Dr. Peerwani [SAW members] are not standards that have changed as a result of the passage of time." Supplemental Writ Exhibits, 2014-03-21 Letter from State Fire Marshal Chris Connealy, p.2.
- 5.2.3.3 State Fire Marshal Chris Connealy sent a letter to District Attorney Rod Ponton on August 20, 2013, summarizing the findings of the Science Advisory Workgroup regarding the Sonia Cacy arson case. In that letter Connealy stated: "[B]ased on the postmortem findings detailed by Dr. Robert Bux which show absence of inhalation of smoke, no evidence of heat damage to the tracheobronchial tree especially airways proximal to laryngeal level, including variable degree of vesticular detachment of mucosa, mucosal hyperemia, mucosal edema and increased mucus secretion, and low levels of postmortem carboxyhemoglobin, there is no scientific evidence to support the opinion that William R. Richardson was alive when the fire broke out. Therefore, the more likely cause of death of William R. Richardson was sudden cardiac death secondary to severe ischemic disease." Supplemental Writ Exhibits, 2013-08-20 Letter from State Fire Marshal Chris Connealy, p.2.
- 5.2.3.4 Dr. John DeHaan, one of the Science Advisory Workgroup arson experts, wrote a letter on January 3, 2014 to District Attorney Rod Ponton further explaining the Workgroup's analysis of the gas chromatographs in Sonia Cacy's case. Dr. DeHaan drafted this letter in response to Ponton's written interrogatories regarding the Workgroup's findings. Dr. DeHaan explained that the standard used by the Workgroup to evaluate the gas chromatographs was based on the ASTM E 1618 standard which was first published in 1994. Prior to 1994 there was no ASTM peer-reviewed, published method for analyzing GC/MS (gas chromatography/mass spectrometry) of volatile ignitable liquids in fire debris. However, Dr. DeHaan stated that "[p]rior to the introduction E1618 in 1994, most analysts knew to look for the characteristic patterns of peaks that only occur in automotive gasoline and not in the volatile "profiles" of partially burned substrates like clothing, carpet or upholstery." Furthermore, Dr.

DeHaan clarified that “[w]hile the ASTM peer-reviewed method in use today was introduced (published) in 1994 (and revised and improved periodically since then), it reflected the commonly accepted methods of GC/MS analysis that had been in use in forensic labs for some years prior. It represented a formalization or codification of technique rather than a revolutionary advancement.” Supplemental Writ Exhibits, 2014-01-03 Letter from Dr. Jon DeHaan, p. 2.

- 5.2.3.5 Dr. John DeHaan stated in his January 3, 2014 letter to District Attorney Rod Ponton that “it is impossible to know from the data presented what criteria Mr. Castorena applied to reach his conclusion [that accelerant was present in the Bill Richardson samples]. However, it is clear that his determination was not based on a sufficient similarity between the data from the Richardson clothing and the reference data from known gasoline even for the date of analysis (November 1991). The conclusion is certainly not supported by analyses carried out by current standards.” Supplemental Writ Exhibits, 2014-01-03 Letter from Dr. Jon DeHaan, p. 2-3.

### **5.3 Habeas Evidentiary Hearings & Evidence**

#### **5.3.1 Affidavit of Dr. Larry Ytuarte, former forensic toxicologist at Bexar County Forensic Science Center**

- 5.3.1.1 Dr. Larry Ytuarte’s affidavit can be found as Exhibit B in these findings.
- 5.3.1.2 Dr. Larry Ytuarte worked as a forensic toxicologist at the Bexar County Forensic Science Center in San Antonio, Texas from September of 1990 to September of 1994. Dr. Ytuarte stated in his affidavit that he “was fired from the Bexar County Crime Lab for going to the Bexar County Commissioners Court, the Bexar County District Attorney’s Office, and the American Academy of Forensic Sciences with a variety of complaints about the crime lab.” Dr. Ytuarte claimed that Case #ME 1578-91 (Sonia Cacy’s case designation at the Bexar County Forensic Science Center) was one of the cases he used as a basis for his complaints.
- 5.3.1.3 Dr. Larry Ytuarte stated in his affidavit he “did not work on this case in an official capacity at the Bexar County crime lab.”
- 5.3.1.4 Dr. Larry Ytuarte signed off as the analyst on the lab results for Bill Richardson’s blood samples. This lab report was admitted as evidence during Joe Castorena’s testimony in Sonia Cacy’s 1993 trial as State’s Exhibits 70-71. 1993-02-24 RR p. 198-201.
- 5.3.1.5 Dr. Larry Ytuarte stated in his affidavit that the analysts involved in the finding of accelerant on Bill Richardson’s clothing, Robert Rodriguez and Joe Castorena, discussed Sonia Cacy’s case with him prior to the completion of their analysis. “They told me that Mr. Richardson had been murdered by Ms. Sonia Cacy. Castorena offered a theory as to the motives for the murder and explained to me how she piled furniture on Mr. Richardson, doused him with gasoline, and set him on fire. Rodriguez, who performed the analysis, told me that he was very upset that Ms. Cacy had killed two dogs in the process of committing the murder. It was clear from their words that both Rodriguez and Castorena already believed Ms.

Cacy was guilty of the crime before the arson analysis had been carried out.”

- 5.3.1.6 Joe Castorena refuted the accusation of pre-judgment of guilt in an affidavit he filed on March 31, 2014, in response to Dr. Larry Ytuarte’s accusations. Castorena stated in his affidavit that “[i]n any matter I worked on, I adopted a neutral and empirical approach.”
- 5.3.1.7 Dr. Larry Ytuarte claimed in his affidavit that he saw the result of the analysis of Bill Richardson’s clothing sample and the result was “an unambiguous none detected, meaning no accelerant was found in the clothing remnants.” Dr. Ytuarte then went on to claim that when he compared the chromatograms of the gasoline standard and the clothing sample he “could see that they did not match.” However, Dr. Ytuarte qualified the statements by admitting that he “had never performed an arson analysis, nor had [he] been required to interpret arson analysis data.”
- 5.3.1.8 Joe Castorena refuted the claim that no accelerant was found in the analysis of the chromatograms in his March 31, 2014 affidavit and highlighted the fact that Dr. Larry Ytuarte did not have any training or experience in arson analysis.
- 5.3.1.9 Dr. Larry Ytuarte alleged in his affidavit that Joe Castorena fabricated report dates and evidence labels.
- 5.3.1.10 Joe Castorena refuted the claim that he changed dates on reports and evidence labels in testimony at Sonia Cacy’s 1996 trial (1996-04-16 Afternoon RR p. 8-10, 26, 37-38, 51-60) when he explained that the reports had “corrections.” Castorena also explained the “corrections” in his March 31, 2014 affidavit and in his testimony at the habeas evidentiary hearing.
- 5.3.1.11 Dr. Larry Ytuarte stated in his affidavit that he wrote to Sonia Cacy in early 1999 telling her what he knew about her case. However, no letter from Dr. Ytuarte to Ms. Cacy was ever admitted into evidence.
- 5.3.1.12 Dr. Larry Ytuarte did not testify at the habeas evidentiary hearing.

## 5.3.2 Defense Case at Evidentiary Hearing

- 5.3.2.1 Among the exhibits Sonia Cacy’s defense team entered into evidence was a letter from Dr. Elizabeth Buc and the State Fire Marshal’s Office (SFMO) report on the investigation of Sonia Cacy’s case.
  - 5.3.2.1.1 **Dr. Elizabeth Buc of the Fire and Materials Research Lab was asked to review the chromatographs and testimony of Joe Castorena by Assistant District Attorney Donald McCarthy.** Dr. Buc submitted a letter summarizing her opinion that the clothing samples from Bill Richardson did not show the presence of gasoline. Supplemental Writ Exhibits, 2014-01-23 Letter from Dr. Elizabeth Buc, p.1. See EXHIBIT E: LETTER FROM DR. ELIZABETH BUC.
  - 5.3.2.1.1.1 Using the ASTM E 1618 Standard Test Method, Dr. Elizabeth Buc compared the November 18, 1991 chromatographs of

- sample ME 1578-91 (pants/underwear) time-stamped 1:08pm, ME 1578-91 (pants/underwear) time-stamped 2:22pm, and two gasoline standards—one run in SCAN mode time-stamped 2:57pm and one run in SIM mode time-stamped 3:24pm. Supplemental Writ Exhibits, 2014-01-23 Letter from Dr. Elizabeth Buc, p.1.
- 5.3.2.1.1.2 Dr. Elizabeth Buc noted that the retention time scales for the samples were not the same and that the different retention times made comparing the peaks challenging. Supplemental Writ Exhibits, 2014-01-23 Letter from Dr. Elizabeth Buc, p.2.
  - 5.3.2.1.1.3 Dr. Elizabeth Buc observed the following differences in the samples and the standards: (1) the 3<sup>rd</sup> peak in the ME 1578-91 sample [pg.2, top profile] methyl/dimethylbenzene profile peak set between 2.4–2.8 minutes has a lower than anticipated peak intensity compared to the other two peaks shown in the gasoline standard [pg. 19, top profile]; (2) the relative intensity of predominant peaks between 4.4–6 minutes in the gasoline standard [pg. 20, top profile] indane/methylindanes differ from the ME 1578-91 sample [pg. 2A, top profile]; and (3) the retention time of the predominant peak in the SCAN gasoline chromatograph is lower in the SIM gasoline chromatograph around the 4 minute mark [pgs. 14 & 18]. Dr. Buc concluded that there were insufficient typical gasoline peak patterns to find the samples positive for ignitable liquid residues or gasoline. Supplemental Writ Exhibits, 2014-01-23 Letter from Dr. Elizabeth Buc, p.2.
  - 5.3.2.1.2 State Fire Marshal Chris Connealy sent a letter to District Attorney Rod Ponton on August 20, 2013, summarizing the findings of the Science Advisory Workgroup regarding the Sonia Cacy arson case. In that letter Connealy stated: “The interpretations of the gas chromatographic data regarding the alleged identification of gasoline by the Bexar County Forensic Science Center are not supported by present-day laboratory analytical standards. Therefore, the cause of the fire should be listed as undetermined.” Supplemental Writ Exhibits, 2013-08-20 Letter from State Fire Marshal Chris Connealy, p.2.
  - 5.3.2.1.2.1 State Fire Marshal Chris Connealy sent a letter to District Attorney Rod Ponton on March 21, 2014 in response to questions Ponton had regarding the Science Advisory Workgroup’s 2013 findings. In that letter Conneally states: “the standards used by Dr. DeHaan and Dr. Peerwani [SAW members] are not standards that have changed as a result of the passage of time.” Supplemental Writ Exhibits, 2014-03-21 Letter from State Fire Marshal Chris Connealy, p.2.
  - 5.3.2.1.2.2 Dr. Gerald Hurst stated that there were no pour patterns visible at the scene of the fire. Pour patterns would suggest that accelerant was used. Dr. Hurst criticized Crockett County Fire Marshal Steve Kenley for testifying that the burned area under Bill Richardson’s cot in the living room was indicative of the

presence of accelerant. Dr. Hurst claimed that trial testimony showed that the cot's foam mat melted and collapsed which accounted for the burn pattern on the carpet beneath Bill Richardson's cot that Fire Marshal Kenley said was caused by accelerant. Dr. Hurst criticized Fire Marshal Kenley for not telling the jury "that the cot mattresses were made of polyurethane foam, a material which has earned the title 'solid gasoline' because its similarity to gas in fueling hot, smoky, fast-burning fires." Affidavit of Dr. Gerald L. Hurst, PhD, p. 11.

**5.3.2.2 The positive finding for accelerants on Bill Richardson's clothing, which were reported by Bexar County Forensic Lab toxicologist, Joe Castorena, were false and no accelerants were present.**

- 5.3.2.2.1 Joe Castorena retired from the Bexar County Forensic Lab in the summer of 2008. 2014-06-30 Writ Hearing RR p. 12.
- 5.3.2.2.2 Joe Castorena testified to supervising the arson testing at the Lab during the time of the investigation of the Bill Richardson's death and doing some of the testing in that case. 2014-06-30 Writ Hearing RR p. 13.
- 5.3.2.2.3 Joe Castorena testified to having been trained in arson testing during the mid-1980s by one of the Bexar County Forensic Lab chemists who had received formal arson training from the Bureau of Alcohol, Fire, Tobacco & Explosives (ATF). 2014-06-30 Writ Hearing RR p. 13.
- 5.3.2.2.4 Joe Castorena testified to having received a letter from Gary Udashen in 2010. 2014-06-30 Writ Hearing RR p. 14.
- 5.3.2.2.5 Joe Castorena testified to having sent a letter to Gary Udashen in response. 2014-06-30 Writ Hearing RR p. 15 (Exhibit 13?).
- 5.3.2.2.6 In his 2010 letter to Gary Udashen, Joe Castorena wrote that there was xylene contamination in the morgue where Bill Richardson's body was autopsied. 2014-06-30 Writ Hearing RR p. 23.
- 5.3.2.2.7 Joe Castorena testified that he filed an affidavit the week before in June of 2014 in which he stated that he also believed that the toxicology lab was contaminated with toluene. 2014-06-30 Writ Hearing RR p. 24.
- 5.3.2.2.8 Joe Castorena testified that the samples taken from Bill Richardson may have been contaminated with xylene and toluene in either the morgue or the toxicology lab. 2014-06-30 Writ Hearing RR p. 24-25.
- 5.3.2.2.9 Joe Castorena testified that this contamination affected his analysis of the Bill Richardson sample. 2014-06-30 Writ Hearing RR p. 25. However, Castorena also testified that it did not affect the "interpretation" of the results. 2014-06-30 Writ Hearing RR p. 33.
- 5.3.2.2.10 Joe Castorena testified that several months prior to the testing of the Bill Richardson sample they were aware that there was contamination at the lab. 2014-06-30 Writ Hearing RR p. 25.

- 5.3.2.2.11 Joe Castorena testified that the problem with the contamination in the lab was not fixed until “well after the Richardson sample was analyzed.” 2014-06-30 Writ Hearing RR p. 25-26.
- 5.3.2.2.12 Joe Castorena testified that he, as assistant chief toxicologist, and the other arson analyst, Robert Rodriguez, were aware of the contamination, but the chief toxicologist, Dr. James Garriott, was probably unaware of the contamination and Dr. Vincent DeMaio, Chief Medical Examiner, and Dr. Robert Bux, Deputy Chief Medical Examiner who performed the autopsy on Bill Richardson, were not aware of the contamination in the lab. 2014-06-30 Writ Hearing RR p. 26-27.
- 5.3.2.2.13 Joe Castorena did not inform Dr. Vincent DeMaio, Chief Medical Examiner, and Dr. Robert Bux, Deputy Chief Medical Examiner who performed the autopsy on Bill Richardson, of the contamination “because it didn’t affect their work. It was affecting—you know, our—you know, affecting ours [his and Robert Rodriguez’s work].” 2014-06-30 Writ Hearing RR p. 27.
- 5.3.2.2.14 Joe Castorena did not note the presence of contamination in his report on the Bill Richardson samples. 2014-06-30 Writ Hearing RR p. 29.
- 5.3.2.2.15 Joe Castorena did not notify the District Attorney’s Office of the contamination before testifying in Sonia Cacy’s trial. 2014-06-30 Writ Hearing RR p. 29.
- 5.3.2.2.16 Joe Castorena did not notify Sonia Cacy’s attorneys about the contamination before testifying in Sonia Cacy’s trial. 2014-06-30 Writ Hearing RR p. 29.
- 5.3.2.2.17 Joe Castorena did not notify the judge about the contamination before testifying in Sonia Cacy’s trial. 2014-06-30 Writ Hearing RR p. 29.
- 5.3.2.2.18 Joe Castorena testified that the only people who knew about the contamination were he and Robert Rodriguez. 2014-06-30 Writ Hearing RR p. 29.
- 5.3.2.2.19 Joe Castorena testified that he did not think it was a significant error in judgment to conceal the presence of contamination in the Bexar County toxicology lab and morgue: “No, it wasn’t. Nobody asked me, you know, about that possible problem. The first time I had an opportunity to discuss this issue was at your request when I wrote the letter to you. That was the first time anyone—you know, I had an opportunity to discuss this issue.” 2014-06-30 Writ Hearing RR p. 30.
- 5.3.2.2.20 Joe Castorena testified that in both his 2010 letter and in his 2014 affidavit he stated that he agreed with the other analysts who found that the scan data did not show gasoline. 2014-06-30 Writ Hearing RR p. 33, Exhibits 13 & 9.

- 5.3.2.2.21 Joe Castorena testified that the contamination did not affect the scan data but it did affect the interpretation of the SIM data. 2014-06-30 Writ Hearing RR p. 35.
- 5.3.2.2.22 Joe Castorena testified that his trial testimony that accelerants were found on Bill Richardson's clothing samples was based on the lab testing and his knowledge of the contamination. 2014-06-30 Writ Hearing RR p. 37.
- 5.3.2.2.23 Joe Castorena testified that at the time of testing the samples from Bill Richardson he was unaware of ASTM E 1387 and ASTM 1618, which were new guidelines for arson analysis. Joe Castorena was not aware of the standards in those guidelines when he was testing the Bill Richardson samples in 1991. 2014-06-30 Writ Hearing RR p. 42.
- 5.3.2.2.24 Joe Castorena testified that the SIM method of analysis was new at the time he was testing Bill Richardson's clothing. Castorena admitted that if the scan data yields a negative result then a SIM test was not supposed to be conducted. 2014-06-30 Writ Hearing RR p. 43.
- 5.3.2.2.25 The scan data was submitted to other forensic experts and they all agreed that the results were negative. 2014-06-30 Writ Hearing RR p. 43.
- 5.3.2.2.26 Despite the negative scan results, Joe Castorena ran a SIM test on Bill Richardson's clothing. Castorena testified that there were sufficient data points to warrant running a SIM test. 2014-06-30 Writ Hearing RR p. 43 & 49.
- 5.3.2.2.27 Both a scan test and a SIM test utilize a gas chromatograph/mass spectrometer for analysis. To evaluate scan data the comparison between the known sample and the test sample is made between a certain range of masses, but to evaluate SIM data the comparison is made between specific ions which are present in the compounds. 2014-06-30 Writ Hearing RR p. 44.
- 5.3.2.2.28 Joe Castorena testified that the SIM test he originally examined also came back negative for accelerants and that all the new analyses of the SIM data by Applicant's experts found that the SIM data came back negative for accelerants. However, Castorena explained that the contamination caused the negative result and that's why he knew the test data was not negative. 2014-06-30 Writ Hearing RR p. 49-50. Castorena testified that every expert who has reviewed the chromatograms produced by testing Bill Richardson's clothing would conclude it was negative for accelerants because they didn't know they were comparing an unevaporated gasoline standard with the sample from Bill Richardson's clothing. 2014-06-30 Writ Hearing RR p. 64-65.
- 5.3.2.2.29 Joe Castorena testified that the matching standard for gasoline was used in analyzing the SIM data but the matching standard was not



included in the case file which was reviewed by the Applicant experts. 2014-06-30 Writ Hearing RR p. 50-51.

- 5.3.2.2.30 Joe Castorena testified that at the time Bill Richardson's clothes were originally tested the lab's protocol did not require the matching standard so he only included the controlled standard, unevaporated gasoline, with the sample. 2014-06-30 Writ Hearing RR p. 51.
- 5.3.2.2.31 Joe Castorena speculated that Applicant's experts misinterpreted the data from the SIM test on Bill Richardson's clothes because they probably assumed that the matching standard was included rather than the controlled standard. 2014-06-30 Writ Hearing RR p. 51 & 54.
- 5.3.2.2.32 Joe Castorena testified that he was unaware that he should have included the matching standard with the sample in the case file until 2010 when he reviewed the ASTM 1387 and 1618. 2014-06-30 Writ Hearing RR p. 53.
- 5.3.2.2.33 Joe Castorena testified that Applicant's experts were not able to interpret the SIM test results correctly and that he could interpret them correctly because he knew that he had included the gasoline standard and not the matching standard in the case file. 2014-06-30 Writ Hearing RR p. 55-56.
- 5.3.2.2.34 Joe Castorena testified that he told Mr. McCarthy from the Pecos County District Attorney's Office that Applicant's experts were making a mistake in criticizing his analysis because they were not aware that a nonmatching standard was not included. However, Castorena testified that he did not tell McCarthy this information until after McCarthy had sent off the testing report for review by Dr. Elizabeth Buc, the State's expert hired to review the arson evidence. 2014-06-30 Writ Hearing RR p. 62.
- 5.3.2.2.35 Joe Castorena testified that he knew there had been toluene and xylene contamination in the lab because they ran negative controls, samples without those components, and the results would show positive results for xylene and toluene. 2014-06-30 Writ Hearing RR p. 156.
- 5.3.2.2.36 Joe Castorena testified that when he saw the high levels of toluene and xylene in the weathered unknown sample, he knew that those levels were a result of the contamination so he did not even consider those levels in his analysis. 2014-06-30 Writ Hearing RR p. 157-58.
- 5.3.2.2.37 Joe Castorena testified that the SIM test data from the weathered sample taken from Bill Richardson shows the presence of a four-peak selective ion profile (SIP) which is particular to gasoline. The SIP is made up of trimethylbenzenes and is always present if a sample is positive for gasoline. The four-peak group is a combination of two ethyltoluene compounds, the ortho and para. 2014-06-30 Writ Hearing RR p. 158-59.

- 5.3.2.2.38 Joe Castorena testified that there are other peaks in the SIM test data responses besides the four-peak SIP but that those are a result of pyrolysis components. 2014-06-30 Writ Hearing RR p. 159.
- 5.3.2.2.39 Joe Castorena testified that the ratio between the four peaks in the trimethylbenzenes is maintained in samples containing gasoline regardless of weathering. 2014-06-30 Writ Hearing RR p. 160.
- 5.3.2.2.40 Joe Castorena testified that the four-peak ratio criteria for identifying gasoline was necessary according to the ASTM 1387 standards as well as the ASTM 1618 standards. 2014-06-30 Writ Hearing RR p. 161.
- 5.3.2.2.41 According to Joe Castorena using SIM mode for analyzing accelerants in samples that are highly contaminated and low in response was a suggested remedy of a Keto/Wineman article in Analytical Chemistry published in the fall of 1991. 2014-06-30 Writ Hearing RR p 177
- 5.3.2.2.42 Joe Castorena used a library of various evaporated gasolines to compare to his data from the clothing sample run through the GC/MS instrument, but that library reference is no longer available. 2014-06-30 Writ Hearing RR p. 178-9.
- 5.3.2.2.43 Joe Castorena testified that although the library he used as a reference at the time is no longer available he was able to find an 80% weathered gasoline standard published by Keto/Wineman. The Keto/Wineman standard can be compared to the data from the clothing sample run through the GC/MS instrument. 2014-06-30 Writ Hearing RR p. 178-81.
- 5.3.2.2.44 Joe Castorena didn't include dodecane in his analysis results because knew the clothing sample was contaminated with pyrolysis products. 2014-06-30 Writ Hearing RR p. 182-83.
- 5.3.2.2.45 Joe Castorena testified that he was never asked in the 1993 trial or the 1996 trial to explain how he detected some indicators of accelerant in the scan mode and then decided to run the sample through the SIM mode. 2014-06-30 Writ Hearing RR p. 184.
- 5.3.2.2.46 Joe Castorena testified that he was instructed to only answer the question asked when giving testimony in trial. No one ever asked about the process he used when analyzing the Gas Chromatography/Mass Spectrometry data. 2014-06-30 Writ Hearing RR p. 185.
- 5.3.2.3 Dr. Richard Henderson is one of many arson experts who confirmed that Joe Castorena's reading of the Gas Chromatography/Mass Spectrometry (GC/MS) data from the testing of Bill Richardson's clothing was erroneous and finds that the data from the testing is negative for accelerants.
- 5.3.2.3.1 Dr. Richard Henderson is the president of Southeastern Research Laboratories which performs fire investigations and chemical analyses. Dr. Henderson has a Ph.D in chemistry and is a certified fire investigator. 2014-06-30 Writ Hearing RR p. 68-69.

- 5.3.2.3.2 At the time of the writ evidentiary hearing, the State objected to the admission of Dr. Henderson's testimony on the basis that it was not newly discovered evidence and the interpretations of the data were known at the time of the original trial. 2014-06-30 Writ Hearing RR p. 69.
- 5.3.2.3.3 Dr. Richardson Henderson was asked by Dr. Gerald Hurst to review the chromatography data from the Sonia Cacy case in the mid-1990s. 2014-06-30 Writ Hearing RR p. 70.
- 5.3.2.3.4 Dr. Richard Henderson testified that there was no presence of gasoline in either the scan testing or the SIM testing. 2014-06-30 Writ Hearing RR p. 73.
- 5.3.2.3.5 Dr. Richard Henderson testified that the testing revealed the presence of pyrolyzates, which was caused by the breakdown of styrene. 2014-06-30 Writ Hearing RR p. 73. Dr. Henderson testified that the testing reveals pyrolysis not gasoline. 2014-06-30 Writ Hearing RR p. 74.
- 5.3.2.3.6 Dr. Richard Henderson testified that because of the contamination in the morgue, the clothing samples should not have even been tested because it is standard scientific practice not to test a contaminated sample. 2014-06-30 Writ Hearing RR p. 74-75.
- 5.3.2.3.7 The defense stated that the first time it became aware of contamination was 2010 when it received the letter from Joe Castorena. The State said that it first became aware of contamination in January 2014 but the State had also received a copy of Joe Castorena's letter in 2010. 2014-06-30 Writ Hearing RR p. 78-79.
- 5.3.2.3.8 Dr. Richard Henderson testified that it was unethical lab practice not to test for other contaminants and to fail to notify his supervisors and colleagues of the known contamination of toluene and xylene. 2014-06-30 Writ Hearing RR p. 80.
- 5.3.2.3.9 Dr. Richard Henderson explained that when samples are tested using the scan method of mass spectrometry all of the molecules from the sample are measured for mass and the masses can tell the analyst what type of molecule is present in the sample. Henderson compared the scan method with the SIM method which does not identify every type of molecule present but rather takes a known ion pattern for a particular molecule and compares the mass spectrometry for a pattern that is identical to the known ion pattern. In other words, the SIM method is used for looking for a specific molecule whereas the scan method gives an overall view of what molecules are present. The SIM method is very sensitive because it only looks for a certain ion pattern, but the scan method gives a broad overview. 2014-06-30 Writ Hearing RR p. 86-87.
- 5.3.2.3.10 Dr. Richard Henderson testified that the problem with SIM testing was that styrene pyrolysis and gasoline produce look almost identical when comparing SIM data. Dr. Henderson testified that

- styrene pyrolysis and gasoline could be distinguished by looking for skewed ratios in the scan data. 2014-06-30 Writ Hearing RR p. 88.
- 5.3.2.3.11 Dr. Richard Henderson testified that he saw skewed ratios in the scan mode of the chromatograms from Bill Richardson's clothing samples and knew that he was seeing styrene pyrolysis not gasoline. 2014-06-30 Writ Hearing RR p. 89.
- 5.3.2.3.12 Dr. Richard Henderson testified that once he detected the styrene pyrolysis in the scan data he knew that there was no reason to perform the SIM analysis. 2014-06-30 Writ Hearing RR p. 89-90.
- 5.3.2.3.13 Dr. Richard Henderson is on the committee which promulgates the standards for fire debris analysis, the American Society for Testing and Materials (ASTM). Dr. Henderson testified that even as far back as the ASTM E 1618-94, the standards for fire debris analysis in 1994, analysts were warned of the problem of mistakenly identifying styrene pyrolysis as gasoline. 2014-06-30 Writ Hearing RR p. 91-92.
- 5.3.2.3.14 Dr. Richard Henderson testified that Joe Castorena would not have been aware of the problem of misidentifying styrene pyrolysis for gasoline in SIM analysis in 1991 when he was performing the testing on Bill Richardson's clothing samples because the ASTM E 1618-94 was not published until 1994. 2014-06-30 Writ Hearing RR p. 92 & 96.
- 5.3.2.3.15 Dr. Richard Henderson testified that when he analyzed the chromatograms from the original testing he saw that metaethyltoluene was present but paraethyltoluene was not present. Dr. Henderson stated that both metaethyltoluene and paraethyltoluene must be present to conclude that the compound is gasoline. 2014-06-30 Writ Hearing RR p. 94 & 108.
- 5.3.2.3.16 Dr. Richard Henderson testified that if Joe Castorena had been aware of the ASTM E 1618-94 standards that were published in 1994 then Castorena would have ruled out gasoline in his 1991 analysis because of the lack of paraethyltoluene. 2014-06-30 Writ Hearing RR p. 94-95.
- 5.3.2.3.17 Dr. Richard Henderson testified that he also noted the presence of high levels of alkenes in the chromatogram. The presence of high levels of alkenes indicate significant pyrolysis and are a warning sign that the sample could be compromised. 2014-06-30 Writ Hearing RR p. 95-96.
- 5.3.2.3.18 Dr. Richard Henderson testified that if Joe Castorena had been aware of the ASTM E 1618-94 standards that were published in 1994 then Castorena would have known of the two cautionary factors, similarity of styrene pyrolysis to gasoline and presence of high alkene levels, and would have known that he most likely did not have gasoline. 2014-06-30 Writ Hearing RR p. 94-96.
- 5.3.2.3.19 Dr. Richard Henderson testified that Joe Castorena noted high levels of alkenes in his November 30, 2010 letter so Castorena was aware of what analysts now know is a cautionary factor, but Castorena

would not have known that the high levels of alkenes that he observed when he did the original analysis were an indicator of pyrolysis not gasoline in 1991. 2014-06-30 Writ Hearing RR p. 96-97.

- 5.3.2.3.20 Dr. Richard Henderson testified that the Keto and Wineman papers which discuss the problem of similarity between styrene pyrolysis and gasoline were not available to Joe Castorena when Castorena did his original analysis because those papers were published in 1994 & 1995. 2014-06-30 Writ Hearing RR p. 99.
- 5.3.2.3.21 Dr. Richard Henderson testified that Joe Castorena should have noticed from the gas chromatograms that the patterns between his unknown sample from Bill Richardson's clothing and the known pattern for gasoline did not match up. Dr. Henderson noted that some of that discrepancy could have been accounted for by considering weathering. 2014-06-30 Writ Hearing RR p. 100.
- 5.3.2.3.22 Dr. Richard Henderson testified that "weathering" of gasoline means the process of removing the volatile components of the the compound. 2014-06-30 Writ Hearing RR p. 101.
- 5.3.2.3.23 Dr. Richard Henderson testified that it was unusual for Joe Castorena to include a non-weathered gasoline sample as a known standard with the sample from Bill Richardson's clothing which was weathered. Dr. Henderson said this was unusual because if an analyst knew he had a weathered unknown sample then he should have provided a weathered known standard for comparison purposes. 2014-06-30 Writ Hearing RR p. 100.
- 5.3.2.3.24 Dr. Richard Henderson testified that he and the other experts who reviewed Joe Castorena's data and reports knew that the known standard in the report was fresh gasoline from the chromatogram data points which are more consistent with the reference patterns of fresh gasoline than weathered gasoline. 2014-06-30 Writ Hearing RR p. 100-01 & 102-03.
- 5.3.2.3.25 Dr. Richard Henderson testified that he and the other experts who reviewed Joe Castorena's data and reports knew that the unknown sample from Bill Richardson's clothing must have been weathered because it had been collected from a fire. 2014-06-30 Writ Hearing RR p. 100-01.
- 5.3.2.3.26 Dr. Richard Henderson testified that Joe Castorena is unqualified because Castorena did not use the known protocols from ASTM E 1618-94, which was published in 1994, when interpreting his data in 1991. 2014-06-30 Writ Hearing RR p. 104.
- 5.3.2.3.27 Dr. Richard Henderson testified that Joe Castorena is unqualified to analyze fire debris because he had not attended advanced training and his work mainly consisted of analyzing drug compounds which are less complex than the compounds found in fire debris. 2014-06-30 Writ Hearing RR p. 105-06.

- 5.3.2.3.28 Dr. Richard Henderson testified that he did not believe Joe Castorena ran a library search to try and identify the compounds from the SIM test data because Castorena did not include a print out of that search. Without running a library search, Joe Castorena's identification of any compounds are questionable in Dr. Henderson's opinion.
- 5.3.2.3.29 Dr. Richard Henderson testified that the chart included in Joe Castorena's 2010 letter is misleading because Castorena claimed the chart showed the unknown sample data matched up with gasoline but Dr. Henderson testified that there are aberrations present which show styrene pyrolysis not gasoline. 2014-06-30 Writ Hearing RR p. 110-111.
- 5.3.2.3.30 Dr. Richard Henderson testified that a scientific paper written by Ray Keto of the ATF in 1995 explained the problems with data points similar to the ones Joe Castorena analyzed from the SIM test and how those data points could be created by styrene pyrolysis. 2014-06-30 Writ Hearing RR p. 112.
- 5.3.2.3.31 Dr. Richard Henderson testified that Joe Castorena may have misidentified the compounds because he only looked at the SIM data and did not evaluate the data in the context of the scan data as a whole. 2014-06-30 Writ Hearing RR p. 113.
- 5.3.2.3.32 Dr. Richard Henderson testified that Joe Castorena misidentified some of the components of the compound on the SIM data run sheet. 2014-06-30 Writ Hearing RR p. 114.
- 5.3.2.3.33 Dr. Richard Henderson testified that he was contacted by Dr. Gerald Hurst in 1996 and asked to review the chromatograms and chromatogram analysis performed by Joe Castorena. 2014-06-30 Writ Hearing RR p. 119-120, 126.
- 5.3.2.3.34 Dr. Richard Henderson testified that in 1996 he was not asked to look at new evidence or test any evidence from the Bill Richardson fire. Dr. Henderson further testified that he is unaware of any new testing on the physical evidence by any other analysts. 2014-06-30 Writ Hearing RR p. 127.
- 5.3.2.3.35 Dr. Richard Henderson testified that he would not have been able to retest any evidence in 1996 because too much time had passed since the fire and the evidence would only have been suitable for retesting for a few weeks or months after the fire. 2014-06-30 Writ Hearing RR p. 128.
- 5.3.2.3.36 Dr. Richard Henderson testified that even had he been contacted a few weeks after the original testing, he would not have advised retesting because the chromatography itself was fairly good. 2014-06-30 Writ Hearing RR p. 128.
- 5.3.2.3.37 Dr. Richard Henderson testified that he was not convinced that the clothing samples were contaminated. Dr. Henderson testified that he believed the test data patterns appeared the way they did because of styrene pyrolysis not contamination. Dr. Henderson further

- testified that there was no way to resolve whether the data patterns were the result of contamination or styrene pyrolysis. 2014-06-30 Writ Hearing RR p. 128-29.
- 5.3.2.3.38 Dr. Richard Henderson testified that his conclusions that the data patterns revealed styrene pyrolysis rather than gasoline would have been the same in 1996 as they were in this 2014 evidentiary hearing. 2014-06-30 Writ Hearing RR p. 132.
- 5.3.2.3.39 Dr. Richard Henderson testified that according to a 1995 scientific article by ATF analyst, Raymond Keto, there is no way to use the data from your computer to manipulate out the contamination of fire scene pyrolysis products. 2014-06-30 Writ Hearing RR p. 145-46.
- 5.3.2.3.40 Dr. Richard Henderson testified that he would have been available to testify in Sonia Cacy's 1993 trial had he been contacted by defense counsel. 2014-06-30 Writ Hearing RR p. 146-47.
- 5.3.2.3.41 Dr. Richard Henderson also testified that other arson experts were available in 1993 to testify at Sonia Cacy's trial. 2014-06-30 Writ Hearing RR p. 146.
- 5.3.2.3.42 Dr. Richard Henderson cannot definitively rule out that gasoline was present. 2014-06-30 Writ Hearing RR p.200.
- 5.3.2.4 Tony Chavez, Sonia Cacy's defense counsel in the 1993 trial of Sonia Cacy on guilt/innocence was ineffective for failing to bring a qualified arson expert to testify and rebut the State's arson experts.
- 5.3.2.4.1 Tony Chavez was Sonia Cacy's appointed defense counsel for her 1993 trial. 2014-06-30 Writ Hearing RR p. 137.
- 5.3.2.4.2 Tony Chavez testified that he was told by the trial judge, Alex Gonzales, that there was not enough money to hire an expert like Dr. Richard Henderson to testify regarding the fire debris evidence. 2014-06-30 Writ Hearing RR p. 138-39.
- 5.3.2.4.3 Tony Chavez testified that he chose to go with Odessa Fire Captain, Donald Dangerfield, as an expert arson witness because he could understand the layman's terms Captain Dangerfield used and he felt that the jury would be able to understand Captain Dangerfield's theories. 2014-06-30 Writ Hearing RR p. 139-40.
- 5.3.2.4.4 Tony Chavez testified that he was unsure of whether or not Judge Alex Gonzales would have given him additional funds for an arson expert if he had pressed the matter. 2014-06-30 Writ Hearing RR p. 140.
- 5.3.2.4.5 Tony Chavez testified that he didn't think he needed a medical expert to review the autopsy results of the Chief Medical Examiner, Dr. Robert Buc. 2014-06-30 Writ Hearing RR p. 141.
- 5.3.2.4.6 Tony Chavez testified that Captain Donald Dangerfield's theory of the fire was that Bill Richardson accidentally set himself on fire with

a cigarette and that fire spread to the curtains. 2014-06-30 Writ Hearing RR p. 143.

- 5.3.2.5 Dr. John DeHaan, an arson expert, is a member of the Texas Forensic Science Commission's Science Advisory Workgroup that reviewed Sonia Cacy's trial and found that Bill Richardson did not die as a result of arson but more likely as a result of a heart attack.
- 5.3.2.5.1 Dr. John DeHaan has a Ph.D in pure and applied chemistry. He has been working in criminal forensics since 1970. He specializes in fires and explosions. He currently works as a consultant for his own company, Fire-Ex Forensics, Inc. 2014-07-01 Writ Hearing RR p. 17-19. Dr. DeHaan obtained his Ph.D in chemistry in 1995. 2014-07-01 Writ Hearing RR p. 65.
- 5.3.2.5.2 Dr. John DeHaan was contacted by his colleague, Dr. Richard Henderson, who asked him to review some gas chromatograph/mass spectrometry data in November of 2001. 2014-07-01 Writ Hearing RR p. 21.
- 5.3.2.5.3 Dr. John DeHaan did not conduct any tests. He analyzed the data obtained by Joe Castorena in 1991. 2014-07-01 Writ Hearing RR p. 29. No physical evidence was submitted to Dr. John DeHaan for his review. Dr. Richard Henderson only provided Dr. DeHaan with the chromatographic printouts for the underwear sample analyzed by Joe Castorena and analysis of reference gasoline from the same lab instrument. No retesting of the physical evidence was performed. 2014-07-01 Writ Hearing RR p. 66-67, 73, 75.
- 5.3.2.5.4 Dr. John DeHaan testified that the State Fire Marshal's Science Advisory Group, of which Dr. DeHaan was a participant, inquired into whether there was any physical evidence but was told that no physical evidence existed. However, Dr. DeHaan opined that even had physical evidence been available for retesting, the results would have been unreliable because of the amount of time that elapsed between the time of the fire and the time of retesting. 2014-07-01 Writ Hearing RR p. 73-74.
- 5.3.2.5.5 Dr. John DeHaan was aware that the reference mass spectral data was that of neat gasoline. 2014-07-01 Writ Hearing RR p. 23 & 24.
- 5.3.2.5.6 Dr. John DeHaan explained a gas chromatogram scan as a "scanning" through repeatedly to detect peaks from 48 atomic mass units to 400 atomic mass units and then printing out data for every peak it detects. 2014-07-01 Writ Hearing RR p. 23.
- 5.3.2.5.7 Dr. John DeHaan disagreed with Joe Castorena that another analyst would not have recognized that the reference sample accompanying the unknown clothing sample was fresh gasoline. Dr. DeHaan says he knew that it was fresh gasoline from the characteristic groups and proportions in the data. 2014-07-01 Writ Hearing RR p. 24-25.
- 5.3.2.5.8 Dr. John DeHaan agreed with Dr. Richard Henderson that any experienced analyst would recognize the reference chromatogram as fresh gasoline. 2014-07-01 Writ Hearing RR p. 25-26.



- 5.3.2.5.9 Dr. John DeHaan knew there was no gasoline present in the unknown clothing sample because there was no characteristic 1-3-5 combination: toluene, C2 alkylbenzenes, and C3 alkylbenzenes. 2014-07-01 Writ Hearing RR p. 26-27.
- 5.3.2.5.10 Dr. John DeHaan explained that even when gasoline evaporates and the toluene and C2 alkylbenzenes burn off, C3 alkylbenzenes will remain and other compounds like mid-range alkanes, C9 and C10, will be present, which indicate gasoline. 2014-07-01 Writ Hearing RR p. 27.
- 5.3.2.5.11 Dr. John DeHaan pointed out that the problem with the mid-range gasoline aromatics like C9 and C10 alkanes is that they look a lot like the aromatic solvents in other consumer products like insecticides. 2014-07-01 Writ Hearing RR p. 27-28.
- 5.3.2.5.12 Dr. John DeHaan said that because of the similarity between products with similar aromatics the selected ion mode (SIM) of the mass spectrometry machine is very useful. With SIM an analyst can ask the machine to look for specific ions and weed out pyrolysis products. 2014-07-01 Writ Hearing RR p. 28.
- 5.3.2.5.13 Dr. John DeHaan heard some of the testimony from Joe Castorena and Dr. Richard Henderson during the writ hearing. 2014-07-01 Writ Hearing RR p. 29.
- 5.3.2.5.14 Dr. John DeHaan testified that the problem with Joe Castorena's analysis is that Castorena says the patterns indicate gasoline but Dr. DeHaan says those same patterns can be caused by contaminants such as the chemical fire suppressant used to put out the fire. Dr. DeHaan the data results appear to contain components of pyrolysis which appear similar to gasoline. 2014-07-01 Writ Hearing RR p. 32-33.
- 5.3.2.5.15 Dr. John DeHaan testified that Joe Castorena cannot be sure that the data shows gasoline because those patterns could be caused by something that arose naturally at the scene and the way to eliminate that possibility is to submit and analyze a comparison sample of the clothing and the carpet. 2014-07-01 Writ Hearing RR p. 33.
- 5.3.2.5.16 Dr. John DeHaan was contacted by Texas State Fire Marshal Chris Connealy to participate in a scientific advisory group. 2014-07-01 Writ Hearing RR p. 34-35.
- 5.3.2.5.17 The official name of the scientific advisory group Dr. John DeHaan was asked to join was the "Science Advisory Workgroup" and it was commissioned by the State Fire Marshal for the purpose of reviewing the scientific aspects of investigations that had resulted in convictions. 2014-07-01 Writ Hearing RR p. 36-37
- 5.3.2.5.18 One of the cases reviewed by the Science Advisory Workgroup was the Sonia Cacy investigation. 2014-07-01 Writ Hearing RR p. 38.
- 5.3.2.5.19 The State Fire Marshal's report was admitted as evidence over the State's objection because Dr. John DeHaan signed off on the report

as one of the participants in the study of the investigation of Sonia Cacy. 2014-07-01 Writ Hearing RR p. 44-45.

- 5.3.2.5.20 Dr. John DeHaan reviewed reports by the deputy state fire marshal who assisted Ft. Stockton authorities, the reports from Ft. Stockton police and fire authorities (including reports from the previous two fires), the post-mortem report of Dr. Robert Bux, the laboratory report of Joe Castorena, photographs of the scene of the fire, and statements from witnesses including Sonia Cacy. 2014-07-01 Writ Hearing RR p. 45-46.
- 5.3.2.5.21 Dr. John DeHaan testified that the Science Advisory Workgroup made findings that the gas chromatograph data did not support Joe Castorena's conclusion that gasoline was present. 2014-07-01 Writ Hearing RR p. 46.
- 5.3.2.5.22 Dr. John DeHaan testified that his participation in the Science Advisory Workgroup's investigation into Sonia Cacy's conviction did not change his analysis of the data that Dr. Richard Henderson has sent him in 2001. The investigation merely reaffirmed his conclusion that gasoline was not present in the sample taken from Bill Richardson's clothing. 2014-07-01 Writ Hearing RR p. 46-47.
- 5.3.2.5.23 Dr. John DeHaan concluded from the location of Bill Richardson's body and the burn patterns on the furniture and walls that the fire started in the vicinity of Bill Richardson's cot. 2014-07-01 Writ Hearing RR p. 48.
- 5.3.2.5.24 Dr. John DeHaan evaluated the radiant heat damage to materials in the living room area and concluded that there was a potential that pyrolysis products created the chromatographic data and that there was an absence of anything else that would have suggested an ignitable liquid had been used in the vicinity. 2014-07-01 Writ Hearing RR p. 48.
- 5.3.2.5.25 Dr. John DeHaan testified that Dr. Peerwani examined the photographs of Bill Richardson's body and the post-mortem report prepared by Dr. Robert Bux. Dr. DeHaan testified that according to Dr. Bux's report the only soot found in Bill Richardson's body was in his mouth and nasal passages and there was no indication of thermal injury in the trachea. 2014-07-01 Writ Hearing RR p. 49.
- 5.3.2.5.26 Dr. DeHaan testified that the position of the body, with Bill Richardson's left cheek immediately adjacent to the burned carpet, indicated that soot could have found its way into the nasal passages and open mouth as a result of the combustion of the carpet. Dr. DeHaan also testified that there were no signs of inhalation of flame or actual combustion products. 2014-07-01 Writ Hearing RR p. 49.
- 5.3.2.5.27 Dr. DeHaan testified that Dr. Peerwani pointed out that the observations about the internal organs were consistent with a heart condition and the presence of defects could have contributed to death due to heart malfunction during the early stages of the fire. 2014-07-01 Writ Hearing RR p. 49-50.

- 5.3.2.5.28 Dr. DeHaan testified that Dr. Peerwani observed that nothing about Bill Richardson's body indicated direct application of ignitable liquids and that the thermal burns were more likely caused by the radiant heat from the combustion of nearby materials. 2014-07-01 Writ Hearing RR p. 50.
- 5.3.2.5.29 Dr. DeHaan testified that Dr. Peerwani concluded that there was no evidence indicating Bill Richardson was alive at the time of the fire and that the more likely cause of death was sudden cardiac death secondary to severe ischemic heart disease. 2014-07-01 Writ Hearing RR p. 50-51.
- 5.3.2.5.30 The Science Advisory Workgroup's report on the investigation resulting in Sonia Cacy's conviction was issued on August 20, 2013. 2014-07-01 Writ Hearing RR p. 51.
- 5.3.2.5.31 Dr. John DeHaan testified that if the samples from Bill Richardson's clothing were contaminated in the morgue then the samples should not have been analyzed because the results would not have been reliable. 2014-07-01 Writ Hearing RR p. 58-59.
- 5.3.2.5.32 Dr. John DeHaan testified that, in his opinion, if a lab analyst knew of lab contamination, then that analyst should report the problem to his supervisors and correct the problem immediately. 2014-07-01 Writ Hearing RR p. 59.
- 5.3.2.5.33 Dr. John DeHaan testified that the contamination by xylenes and toluenes would render the evidence valueless because those compounds usually indicate the presence of gasoline. 2014-07-01 Writ Hearing RR p. 59-60.
- 5.3.2.5.34 Dr. John DeHaan testified that, in his experience with interviews of victims of fires and explosions, the victims' memories and the observations of other people don't always connect, and that might be an explanation for why Sonia Cacy's explanations of what happened during the fire don't match up. Dr. DeHaan also said that carbon monoxide in the smoke inhaled by Ms. Cacy might have also interfered with her brain function. 2014-07-01 Writ Hearing RR p. 61.
- 5.3.2.5.35 Dr. John DeHaan testified that he disagreed with trial testimony from Mr. Kinley that he had previously read, which stated that Sonia Cacy's hair could only have been singed by direct heat. Dr. DeHaan stated that hair can be singed with indirect contact from heat as low as 500 degrees Fahrenheit. 2014-07-01 Writ Hearing RR p. 62.
- 5.3.2.5.36 Dr. John DeHaan disagrees with Joe Castorena's 1991 opinion that gasoline was present in the samples from Bill Richardson's clothing that were tested in 1991 by Joe Castorena. 2014-07-01 Writ Hearing RR p. 70.
- 5.3.2.5.37 Dr. John DeHaan testified that the science of "being able to look at a chromatogram and decide whether you're looking at gasoline or pyrolysis" was "pretty well developed by 1991." 2014-07-01 Writ Hearing RR p. 75. Dr. DeHaan testified that the science has "evolved

some since then [1991] with refinements where we discover better isolation techniques or problems with our existing analytical schemes, but it's basically the same." 2014-07-01 Writ Hearing RR p. 76.

- 5.3.2.5.38 On cross-examination, Dr. John DeHaan was asked by Pecos County prosecutor, Rod Ponton, to review a 1991 letter from AID Laboratory which summarized the results of samples from Bill Richardson's autopsy that were placed in sealed metal cans and analyzed by the AID at the request of Fort Stockton Police Department Investigator, Jerry Joplin. 2014-07-01 Writ Hearing RR p. 78. Dr. DeHaan also read from the report AID sent with the letter to Investigator Joplin and the report stated that no accelerants were found in the sample. 2014-07-01 Writ Hearing RR p. 80. Dr. DeHaan noted a discrepancy between the letter and a memo written by an analyst contained in the report. 2014-07-01 Writ Hearing RR p. 81. According to the letter AID Laboratory sent Investigator Joplin, they used steam distillation to analyze for the presence of accelerants. 2014-07-01 Writ Hearing RR p. 81. However, in the handwritten memo the AID analyst stated that he used a charcoal trap and thermal desorption to analyze the sample. 2014-07-01 Writ Hearing RR p. 81.
- 5.3.2.5.39 Dr. John DeHaan stated that he had not seen the 1991 AID report stating that no accelerants were found before the writ hearing on July 1, 2014. 2014-07-01 Writ Hearing RR p. 82, 87-88.
- 5.3.2.5.40 Dr. John DeHaan testified that if the physical evidence had been retested at the time of the 1996 retrial on punishment, it might have provided good scientific analysis, but stated that it was only remotely possible as most evidence of that type has a shelf-life of two years. 2014-07-01 Writ Hearing RR p. 84.
- 5.3.2.5.41 Dr. John DeHaan testified accelerants may burn off or evaporate from a sample before the sample can be tested. "If the fire is sufficiently intense or prolonged, the residues of gasoline can be lost, even to the point where the initial investigator may not detect them. We also have evaporation losses before the material is collected, which can contribute to that negative finding." 2014-07-01 Writ Hearing RR p. 88.
- 5.3.2.5.42 Dr. John DeHaan testified on redirect that other experts on arson were available to testify at Sonia Cacy's trial in 1993. 2014-07-01 Writ Hearing RR p. 90.
- 5.3.2.5.43 Dr. John DeHaan testified that he was not aware that the State's argument at the 1993 trial was that the sample tested by the AID laboratory had already been tested by the Bexar County toxicology lab and that accelerants were not found by AID because they had already been depleted by the Bexar County testing. 2014-07-01 Writ Hearing RR p. 91.

### 5.3.3 State's Case at Evidentiary Hearing

- 5.3.3.1 Albert Valadez, the District Attorney in Pecos County who prosecuted Sonia Cacy, maintains that circumstantial evidence such as Cacy's inconsistent stories about what happened at the time of the fire led to Cacy's conviction and that the presence of accelerants was never a focus of the State's case.
  - 5.3.3.1.1 Albert Valadez took office in April 1992 as District Attorney for the 83<sup>rd</sup> District. 2014-07-01 Writ Hearing RR p. 98.
  - 5.3.3.1.2 Albert Valadez prosecuted Sonia Cacy's case. 2014-07-01 Writ Hearing RR p. 98.
  - 5.3.3.1.3 Albert Valadez testified that he based his decision to charge Sonia Cacy with murder based on many factors including scientific evidence from Dr. Robert Bux and Joe Castorena. 2014-07-01 Writ Hearing RR p. 99.
  - 5.3.3.1.4 Albert Valadez testified that in addition to scientific evidence he received that pointed to arson, he also received scientific reports from Fred Zane that were helpful to the defense. 2014-07-01 Writ Hearing RR p. 99.
  - 5.3.3.1.5 Albert Valadez testified that there was conflicting evidence at the 1993 trial about whether or not accelerant was present. 2014-07-01 Writ Hearing RR p. 102 & 106.
  - 5.3.3.1.6 Albert Valadez testified that his office had a closed file policy but that he did not withhold any scientific evidence from the defense. 2014-07-01 Writ Hearing RR p. 104-05.
  - 5.3.3.1.7 Albert Valadez stated that Sonia Cacy testified at the 1996 retrial on punishment but not at the 1993 trial. 2014-07-01 Writ Hearing RR p. 106.
  - 5.3.3.1.8 Albert Valadez testified that at both trials the State presented evidence that accelerant was present and evidence that accelerant was not present. 2014-07-01 Writ Hearing RR p. 107-08.
  - 5.3.3.1.9 Albert Valadez testified that the State also presented "exonerating evidence" at the second trial that included the fact that there were no DNA comparisons and no blood on Sonia Cacy's fingernail scrapings. 2014-07-01 Writ Hearing RR p. 108.
  - 5.3.3.1.10 Albert Valadez testified that the results of the 1991 AID laboratory report stating that no accelerant was present were presented to the juries. 2014-07-01 Writ Hearing RR p. 108.
  - 5.3.3.1.11 Albert Valadez opined that Sonia Cacy did herself more harm than good by testifying at the punishment retrial because she contradicted her story from the first trial. According to Valadez, Sonia Cacy told witnesses who testified at the 1993 trial that she had been in her bedroom when the fire occurred but testified in the 1996 punishment retrial that she had been in the living room when the fire broke out. 2014-07-01 Writ Hearing RR p. 109-110.

- 5.3.3.1.12 Albert Valadez testified that he did not focus on just the presence of accelerants in the 1996 retrial but on many factors. 2014-07-01 Writ Hearing RR p. 111.
- 5.3.3.1.13 Albert Valadez testified that Sonia Cacy never filed a request to retest any of the physical evidence. 2014-07-01 Writ Hearing RR p. 112-13.
- 5.3.3.1.14 Albert Valadez testified on cross-examination that at the time of the trials he had reason to believe that the clothing samples sent to AID Laboratory were the same samples that had already been tested by Joe Castorena and that the reason AID did not find accelerants was that Castorena's testing had stripped the samples of hydrocarbons which would indicate the presence of accelerants. 2014-07-01 Writ Hearing RR p. 122-23.
- 5.3.3.1.15 Albert Valadez testified that he was unaware that the clothing samples sent to the Bexar County Toxicology Lab and AID Laboratory were different samples. 2014-07-01 Writ Hearing RR p. 123.
- 5.3.3.1.16 Albert Valadez testified that he was unaware that the clothing samples tested by Bexar County Toxicology Lab were contaminated. 2014-07-01 Writ Hearing RR p. 125.
- 5.3.3.1.17 Albert Valadez testified that he was not knowledgeable enough about chemistry to have asked Joe Castorena whether or not a sample had been contaminated. 2014-07-01 Writ Hearing RR p. 126.
- 5.3.3.1.18 Albert Valadez testified that during the trials he focused on the events in Fort Stockton rather than the presence of accelerants. He testified that Sonia Cacy was not immediately a suspect but after he was informed that a series of fires had occurred at the home of Bill Richardson shortly before the fire that killed Richardson, he began to focus on Cacy. Valadez also testified that other factors like the charring on the rafters above Bill Richardson's cot and the reports of witnesses led him to believe Cacy set the fire. 2014-07-01 Writ Hearing RR p. 130-31.
- 5.3.3.1.19 Albert Valadez testified that Sonia Cacy's story that Bill Richardson had gone back into the house to save the dogs did not match the lab results showing that Bill Richardson had not inhaled a significant amount of smoke. He testified that Sonia Cacy's knowledge of where Bill Richardson's body was in the first trial didn't match her story that she had slipped out her bedroom window to escape the fire. 2014-07-01 Writ Hearing RR p. 132-33.

#### 5.3.4 Bench Conference

##### 5.3.4.1 Indictment Language

- 5.3.4.1.1 The indictment alleges that Sonia Cacy caused the death of Bill Richardson by burning him with fire. There is no mention of accelerant. 2014-07-01 Writ Hearing RR p. 152.

5.3.4.1.2 Rod Ponton, the District Attorney for the 83<sup>rd</sup> District representing the State at the habeas evidentiary proceeding, stated on the record that the State's current position was that it was unknown as to whether accelerant was used to start the fire. 2014-07-01 Writ Hearing RR p. 154.

5.3.4.2 Certification of Writ Issues

5.3.4.2.1 Rod Ponton, the District Attorney for the 83<sup>rd</sup> District representing the State at the habeas evidentiary proceeding, questioned whether the 11.073 grounds and the Brady violation grounds had been certified for purposes of the habeas application. 2014-06-30 Writ Hearing RR p. 212.

5.3.4.2.2 On May 21, 2014 the undersigned, Judge Bert Richardson, entered an order denying both the State's Motion to Transmit the Original March 25, 2014 Application to the Court of Criminal Appeals Because No Questions of Fact Were Designated and the State's Motion to Strike the Amended Application as Untimely. In this order, this court held that the amended writ of habeas applications filed by Sonia Cacy would be treated as one continuous application and as such no new Order Designating Issues (ODI) was required because no new or subsequent writ of habeas application had been filed which would require a new ODI. Furthermore, the order did not find that "the failure to 'certify' or 'designate' additional fact issues that are in need of being resolved strips the trial court of jurisdiction to address such fact issues as part of what it considers to be a pending writ application." Based on the reasoning of this order and the authority cited, *Ex parte Coleman*, 2006 WL 1174299 (Tex. Crim. App. 2006), was is not necessary to certify the Brady violation issue.

## **CONCLUSIONS OF LAW**

### **1 False Testimony**

#### **1.1 Applicable Law**

- 1.1.1 False testimony violates an applicant's right to due process under the Fifth and Fourteenth Amendment of the U.S. Constitution and an applicant's right to due course of law under Article I, Section 19 of the Texas Constitution.
- 1.1.2 The two-pronged test under *Ex parte Weinstein* for determining whether false testimony constitutes a due process violation requires: (1) that the testimony was in fact false; and (2) that the testimony was material. 412 S.W.3d 656, 665 (Tex. Crim. App. 2014). The first prong of the test does not require that the witness commit perjury. *Id.* The Court of Criminal Appeals has held that testimony may be found to be false if the testimony taken as a whole gives the jury a false impression. *Id.* at 666. *Weinstein* distinguished materiality from harm. The second prong of the test does not look at whether or not the applicant was harmed but whether or not the testimony was material. *Id.* at 665. Testimony is material only if there is a reasonable likelihood that it affected the judgment of the jury. *Id.* An applicant who can show by a preponderance of the evidence that the false testimony affected the judgment of the jury necessarily shows harm. *Id.*

#### **1.2 Applicant's Claim of False Testimony is Valid & Supported by the Record**

- 1.2.1 As discussed in the context of actual innocence, Joe Castorena's analysis of the GC/MS data from the testing of Bill Richardson clothing, is incorrect for the following reasons: (1) poor testing technique was used when running the clothing samples from Bill Richardson through the GC/MS instrument; (2) the comparison of the clothing and gasoline standard samples' graphs for hydrocarbons revealed that many gasoline hydrocarbon peaks were missing from the clothing sample; and (3) weak indicators of accelerant were present but are most likely the result of Bill Richardson's clothing coming in contact with burning household plastics, which contain petroleum products, and the pyrolysis products of those plastic materials being mistaken for the presence of accelerant.

##### **1.2.1.1 Poor Testing Technique**

- 1.2.1.1.1 Although it is an oversimplification, a Gas Chromatography/ Mass Spectrometry (GC/MS) instrument identifies the presence of a compound by breaking a sample down into its constituent elements and measuring how fast the elements pass through the instrument. Generally, an analyst will run an unknown sample through the instrument and then run a known compound through the instrument. The known sample is usually the compound an analyst is looking for in the unknown sample. The known sample functions as a standard for comparison. The objective in running a standard sample through a GC/MS instrument is to generate data points which will be compared to an unknown sample run through the same GC/MS instrument under the same conditions.



- 1.2.1.1.2 Rodriguez ran the samples through the instrument for different durations causing the graphs that were produced to be difficult to compare accurately. The point on the graph when the constituent element elutes will look different on the time axis of each of the samples because the data points for the time axis will not match up. One axis showing time will look compressed compared to the other sample's axis showing time. Although comparison is not impossible, it is unnecessarily complicated and can lead to mistakes.
  - 1.2.1.1.3 The gasoline standard run through the instrument was also a fresh standard when it should have been a weathered standard, which again caused difficulty in comparison to the clothing sample. Rodriguez should have compared the clothing sample to a weathered gasoline standard because the standard should lack the same evaporated compounds one would expect from a sample that had been exposed to fire.
  - 1.2.1.1.4 In this case, Rodriguez was testing the clothing sample to see if there were any accelerants present. Rodriguez should have chosen an accelerant standard which would resemble a sample that shows the same properties of an accelerant that had been through a fire. In other words, if a clothing sample with accelerant had been through a fire then the accelerant would not have all of its constituent elements because some of the more volatile elements would've evaporated in the fire.
  - 1.2.1.1.5 There was no key indicating which ions were used to identify the functional groups. Without a key, peer review of an analyst's conclusions is difficult because the reviewer can only speculate on what the analyst was relying on to come to his conclusions. In other words, Joe Castorena did not show his work. Reviewing experts can come to their own conclusions about what the data shows, but without a key they can only guess as to upon which ions Joe Castorena was relying in his analysis.
- 1.2.1.2 Main Indicators of Accelerant Missing
- 1.2.1.2.1 Although some of the characteristic compounds of gasoline were present in the clothing sample run through the GC/MS instrument, these compounds were not abundant and not in the proper ratios to indicate the presence of gasoline.
  - 1.2.1.2.2 A primary indicator of gasoline is the characteristic 1-3-5 combination: toluene, C2 alkyl benzenes, and C3 alkyl benzenes. This ratio of constituent compounds was not present in the clothing sample data.
- 1.2.1.3 Weak Accelerant Indicators Most Likely Pyrolysis Products
- 1.2.1.3.1 The indicators of accelerant that Joe Castorena chose to focus on as support for his finding were not considered strong indicators by any of the other experts who reviewed the GC/MS data.

- 1.2.1.3.2 The indicators of pyrolysis products and gasoline can be distinguished by looking for skewed ratios in the scan data. Most of the experts who reviewed the GC/MS data Joe Castorena used in his analysis observed that the ratios for those compounds which could possibly indicate the presence of accelerant were not typical ratios for a positive finding of accelerant.
  - 1.2.1.3.3 The experts who reviewed the GC/MS data from the clothing sample agreed that the more likely explanation of the weak indications of accelerant was the presence of pyrolysis products resulting from the burning of plastic materials which are commonly found in the home.
- 1.2.2 Joe Castorena's finding of accelerant on the sample taken from Bill Richardson's clothing has been reviewed by numerous experts (which have been found credible by this court), and not one of the experts agrees with Castorena's finding. Joe Castorena now claims that the Bexar County Forensic Science Center toxicology lab and morgue were contaminated but that he accounted for that contamination when analyzing the GC/MS data. However, regardless of whether Castorena accounted for the contamination in his analysis, the fact that Castorena knew of the contamination and did not report it compromises the reliability of the positive finding of accelerant. The issue of contamination further solidifies the conclusion that Joe Castorena's finding of accelerant is false. Based on the overwhelming evidence contradicting the finding of accelerant and the possibility of contamination, this court concludes that Joe Castorena's finding of accelerant on Bill Richardson's clothing completely lacks credibility.
- 1.2.3 Joe Castorena's finding of accelerant on Bill Richardson's clothing was material to Sonia Cacy's conviction of guilty in her 1993 trial and her punishment in both the 1993 trial and 1996 retrial. Medical examiner, Dr. Robert Bux, testified that his autopsy report finding of homicide was influenced by Castorena's identification of accelerant, and arson investigator, Steve Kenley, also testified that his conclusion of arson, which was used by Fort Stockton's Police Department, was influenced by Castorena's identification of accelerant. The testimony of Bux and Kenley as well as Castorena himself was critical to the prosecution of Sonia Cacy. Thus, the finding of accelerant operated in a kind of domino effect which ultimately resulted in Sonia Cacy being found guilty of the murder of Bill Richardson.

## **2 Newly Available Scientific Evidence**

### **2.1 Applicable Law**

- 2.1.1 To be eligible for relief under a claim of newly discovered scientific evidence, an applicant must show by clear and convincing evidence that no reasonable juror would have convicted applicant in light of credible, new scientific evidence that constitutes a material exculpatory fact. *Ex parte Henderson*, 384 S.W.3d 833, 834 (Tex. Crim. App. (2012)).
- 2.1.2 Before proceeding to determine whether or not an applicant has proven by clear and convincing evidence that no reasonable juror would have convicted applicant in light of the newly discovered evidence, it must first be established that the evidence is “newly available” and that it is affirmative evidence of applicant’s innocence. *Ex parte Miles*, 359 S.W.3d 647, 671 (Tex. Crim. App. 2012).

### **2.2 Applicant’s Claims of Newly Available Scientific Evidence Are Supported**

- 2.2.1 Sonia Cacy’s claims of actual innocence mirror her claims of newly available scientific evidence. The newly available scientific evidence includes the findings of the State Fire Marshal’s Office as well as Bexar County Assistant Chief Toxicologist Joe Castorena’s admission that the Bexar County toxicology lab and morgue contaminated the clothing samples taken from Bill Richardson.
- 2.2.2 This court finds the State Fire Marshal’s Office (SFMO) 2013 report and Joe Castorena’s 2010 admission regarding contamination of the clothing evidence to be compelling scientific evidence which would cause reasonable doubt as to Sonia Cacy’s guilt. The court is aware that the science underlying the SFMO report is not new and that the experts who investigated on behalf of the SFMO, or experts with comparable qualifications, could have testified at Sonia Cacy’s trial in 1993. However, a report issued by a state-endorsed agency like the State Fire Marshal’s Office is compelling evidence of innocence and the report was not available at either of Cacy’s trial in 1993 or 1996. Similarly, Joe Castorena knew of the contamination at the Bexar County Forensic Science Center at the time he performed the testing of Bill Richardson’s clothing and could have testified to that contamination at the time, but he did not admit to the contamination until 2010 so that information was not available to Cacy at the time of her trial. Thus, the SFMO report and the evidence of lab contamination are clear and convincing evidence that no reasonable juror would have convicted Cacy in light of the newly discovered evidence, and it is established that the evidence is “newly available” and that it is affirmative evidence of applicant’s innocence.

### 3 Ineffective Assistance of Counsel

#### 3.1 Applicable Law

- 3.1.1 Under the *Strickland v. Washington* test for ineffective assistance of counsel, an applicant must show: (1) trial counsel's performance was deficient because it fell below an objective standard of reasonableness; and (2) a probability sufficient to undermine confidence in the outcome existed such that, but for counsel's unprofessional errors, the proceeding would have been different. 466 U.S. 668 (1984); *Thompson v. State*, 9 S.W.3d. 808, 812 (Tex. Crim. App. 1999).
- 3.1.2 An evaluation of trial counsel's performance begins with a presumption that the performance fell within the wide range of reasonable professional assistance. *Ex parte LaHood*, 401 S.W.3d 45, 50 (Tex. Crim. App. 2013). Trial counsel has a duty to investigate or make a reasonable decision that investigation is unnecessary. *Id.* Under the second prong of *Strickland*, counsel's errors are not evaluated as isolated incidents but in the context of the overall record. *Ex parte Menchaca*, 854 S.W.2d 128, 132 (Tex. Crim. App. 1993)
- 3.1.3 When the State makes scientific evidence a key part of its prosecution against a defendant then assistance of a scientific expert is crucial to the defendant's ability to marshal his defense. *Ake v. Oklahoma*, 470 U.S. 68, 80 (U.S. 1985). However, a defendant is not entitled to the expert of his choice. *Id.* at 83. Nor is a defendant entitled to a "team of experts" *See Ex parte Jimenez*, 364 S.W.3d 866, 877-88 (Tex. Crim. App. 2012). *Ake* and its progeny are concerned with reliability, not equality: Was the expert assistance provided to the defendant so lacking or so meager as to create a "high risk of an inaccurate verdict"? *Busby v. State*, 990 S.W.2d 263, 271 (Tex. Crim. App. 1999). If the answer is no, then the State has fulfilled its constitutional obligation because a defendant is guaranteed a fair trial designed to ensure a reliable verdict, not a perfect trial. *Ex parte Flores*, 387 S.W.3d 626, 634 (Tex. Crim. App. 2012). "The nature of an expert's field and the importance and complexity of the issue will bear directly upon whether the appointment of an expert will be helpful." *Rey v. State*, 897 S.W.2d 333, 338 (Tex. Crim. App. 1995).
- 3.1.4 "Trial counsel's duty does not extend to obtaining the "best" or most highly qualified . . . expert in the nation. Instead, it is to investigate the facts of the case and determine if an expert is necessary to present the defendant's case to the jury and, if so, to obtain competent expert assistance. As courts in this and other jurisdictions have noted, the proper focus is on counsel's investigation, not counsel's choice of a specific expert." *Ex parte Flores*, 387 S.W.3d 626, 636 (Tex. Crim. App. 2012).
- 3.1.5 It is unreasonable for counsel to fail to seek additional funds to hire an expert where that failure was based not on any strategic choice but on a mistaken belief that available funding was capped. *Hinton v. Alabama*, 134 S. Ct. 1081, 1088 (2014). Counsel's performance is deficient when he fails to replace an expert he knows is inadequate on the basis of the mistaken belief that funds are unavailable. *Id.*

### **3.2 Applicant's Claim of Ineffective Assistance of Counsel is Valid & Supported by the Record**

- 3.2.1 Tony Chavez, Sonia Cacy's defense counsel at her 1993 trial on guilt/innocence, did not hire an arson expert to consult with prior to trial or to counter during trial the testimony of the following State arson experts: Fort Stockton Fire Chief Jimmy Jackson, Fort Stockton Fire Marshal Frank Salvato, Fire Investigator Steve Kenley, and Odessa Arson Investigator John Taylor. The State's arson experts, Jackson, Salvato and Kenley, discussed their investigation of the fire scene at 1803 North Young in November of 1991, and agreed that the cause of the fire was arson. Chavez brought in Odessa fire captain, Donald Dangerfield, a week before the trial to examine the fire scene, which was already over a year old, and to testify at trial. Odessa Arson Investigator John Taylor testified in rebuttal that Dangerfield completely lacked the training and experience to be an adequate expert qualified to speak on the cause of a fire.
- 3.2.2 Tony Chavez did not hire a forensic science expert to consult with prior to trial or to counter during trial the testimony of Joe Castorena, the State's witness from Bexar County Forensic Science Center who made the positive finding of accelerant on Bill Richardson's clothing, or Gary Gilmore, the State's witness from AID laboratory who made a negative finding of accelerant on Bill Richardson's clothing. The determination of whether or not accelerant was present on Bill Richardson's clothing was the basis for Fire Investigator Steve Kenley's determination that the fire at 1803 North Young Street was arson and Medical Examiner Dr. Robert Bux's determination that the cause of Bill Richardson's death was homicide.
- 3.2.3 Tony Chavez did not hire a medical expert to consult with prior to trial or to counter during trial the testimony of Medical Examiner Dr. Robert Bux, the State's witness who testified that Bill Richardson died of thermal burns. The State Fire Marshal's Office has issued a report, in which medical experts who have reviewed the autopsy report prepared by Dr. Bux, stating that the more likely cause of Bill Richardson's death was "sudden cardiac death secondary to severe ischemic disease."
- 3.2.4 Tony Chavez testified at the habeas evidentiary hearing that Judge Alex Gonzales would not give him the money for an arson expert, but then clarified that he was unsure if Judge Gonzales would give him the money for an expert if he pressed the matter. Chavez also testified that it was part of his trial strategy to hire Fire Captain Donald Dangerfield because he felt the jury would better understand Dangerfield's simple explanation of the cause of the fire. Chavez testified that he did not believe a medical expert was necessary.

- 3.2.5 Tony Chavez's performance as Sonia Cacy's counsel was deficient because no reasonable attorney would fail to investigate a client's case in which the State disclosed prior to trial that it intended to call no fewer than four forensic arson experts and then decide that a fire captain with little to no arson investigation training would be sufficient to rebut the State's evidence. Chavez claimed that using Odessa Fire Captain Donald Dangerfield was a strategic decision aimed at eliciting testimony understandable to the jury, but Dangerfield was immediately discredited by the arson investigator in his own department, John Taylor, who testified that Dangerfield had no qualifications to testify about arson. Chavez's performance was deficient because a reasonable attorney, after adequate investigation of the facts, would have realized that an arson expert was necessary to rebut the State's multiple arson experts. Chavez's performance was deficient because a reasonable attorney, after adequate investigation of the facts, would have realized that he had conflicting reports as to whether accelerant was present on Bill Richardson's clothing and would have sought expert assistance in deciphering the scientific reports. Chavez's performance was deficient because a reasonable attorney, after adequate investigation of the facts, would have consulted with a medical expert regarding the autopsy report on Bill Richardson. Chavez's performance was deficient because he failed to investigate and request funds from the court for hiring an expert witness to assist him. Chavez like the attorney in *Hinton v. Alabama* assumed that funds would not be available for an expert and did not advocate on behalf of Sonia Cacy for the court to rule on whether or not funds were available for an expert.
- 3.2.6 But for Tony Chavez's deficient performance, the outcome of Sonia Cacy's 1993 trial on guilt/innocence would have been different. In her habeas application Cacy presented numerous experts who could have rebutted the State's arson experts and Joe Castorena's finding of accelerant. Cacy also presented evidence in her habeas application that the Bexar County Medical Examiner's testimony could have been rebutted. Tony Chavez did not fail to get the "best" expert or a "team of experts," he failed to get *any* expert. The Texas Court of Criminal Appeals has previously ruled that a defendant has not been prejudiced when counsel failed to get the very best expert or to hire a team of experts. However, Sonia Cacy was provided with no expert assistance in a case that hinged on arson science and medical testimony. Sonia Cacy's counsel, Tony Chavez, deprived her of a fair trial and put her at high risk of receiving an inaccurate verdict by failing to bring even one expert to testify regarding arson science, chemical science, or medical science.
- 3.2.7 Sonia Cacy has proven both the deficiency and prejudice prongs of the *Strickland* test for ineffective assistance of counsel.

## 4 *Brady* Violation

### 4.1 Applicable Law

- 4.1.1 Under *Brady v. Maryland*, an applicant must show that (1) the State failed to disclose evidence, regardless of the prosecution's good or bad faith; (2) the withheld evidence is favorable to applicant; and (3) the evidence is material, in other words, there is a reasonable probability that had the evidence been disclosed, the outcome of the trial would have been different. *Hampton v. State*, 86 S.W.3d 603, 612 (Tex. Crim. App. 2002).
- 4.1.2 A habeas applicant must demonstrate that the evidence withheld by the State is favorable to his case. *Ex parte Miles* 359S.W.3d 647, 665 (Tex. Crim. App. 2012). Favorable evidence is evidence which, if disclosed and used effectively, "may make the difference between conviction and acquittal." *United States v. Bagley*, 473 U.S. 667, 676 (1985). Favorable evidence includes exculpatory evidence and impeachment evidence. *Ex parte Miles* 359S.W.3d at 665. Exculpatory evidence is evidence which may justify, excuse, or clear the defendant from fault, and impeachment evidence is that which disputes, disparages, denies, or contradicts other evidence. *Harm v. State*, 183 S.W.3d 403, 408 (Tex. Crim. App. 2006); *Thomas v. State*, 841 S.W.2d 399, 404 (Tex. Crim. App. 1992).
- 4.1.3 The applicant must also demonstrate that the *Brady* evidence would have been admissible in court. *Ex parte Miles*, 359 S.W.3d 647, 665 (Tex. Crim. App. 2012).
- 4.1.4 Although the Texas Court of Criminal Appeals has not expressly ruled as to whether a toxicologist from a forensic laboratory used by the State would be part of the "prosecution team" for the purposes of *Brady* violation review, at least one judge on the Court has expressed the opinion in dicta that a constitutional violation might occur when a state-government employee testifies for the State: "Even when a witness is not a member of the prosecution team, state action is arguably present if the witness is a state-government employee testifying as such." *Ex parte Weinstein*, 421 S.W.3d 656, 670 (Tex. Crim. App. 2014) (Keller, P.J., concurring).

### 4.2 Applicant's Claim of *Brady* Violation is Valid & Supported by the Record

- 4.2.1 There is currently no case law which directly supports a finding that a forensic toxicologist at a county forensic laboratory is a member of the prosecution team. However, in this case, there is reason to consider Bexar County Assistant Chief Toxicologist, Joe Castorena, a member of the prosecution team. Castorena's finding of accelerant was used by Fire Investigator Steve Kenley whose arson report was used by Fort Stockton Police Department and the Pecos County District Attorney's Office to charge Sonia Cacy with murder by arson. Castorena's finding of accelerant was also used in part by Medical Examiner Dr. Robert Bux to determine the manner of Bill Richardson's death was a homicide. The State used Castorena's testimony not once but twice to prosecute Sonia Cacy, even after the State was provided with information that Castorena's results were not reliable. Castorena was a key part of the prosecution's case and as such, Joe Castorena should be considered a member of the prosecution team for purposes of a *Brady* violation review.

- 4.2.2 Bexar County Assistant Chief Toxicologist, Joe Castorena withheld information that the Bexar County morgue and the Bexar County toxicology lab were contaminated with xylene and toluene respectively. These chemical compounds affect the testing of materials for the presence of accelerants. This information was not disclosed to defense counsel before, during or after Sonia Cacy's 1993 trial on guilt/innocence, nor was it disclosed before or during Cacy's 1996 retrial on punishment. Castorena did not disclose this information until 2010 when Sonia Cacy was seeking post-conviction relief.
- 4.2.3 The information regarding contamination of the lab where testing was conducted would have been favorable because Sonia Cacy's defense counsel could have impeached on cross examination the reliability of Joe Castorena's finding of accelerant. If defense counsel had been made aware of the contamination, Sonia Cacy might have been able to convince jurors that the basis for Fire Investigator Steve Kenley's finding of arson was unreliable and Medical Examiner Dr. Robert Bux's finding of homicide was unreliable. The reliability of the finding of accelerant was material to Sonia Cacy's conviction. The prosecution's case would have come apart at the seams if contamination of the testing was disclosed and there is more than a reasonable probability that the outcome of the trials would have been different had this information been timely disclosed by Joe Castorena.
- 4.2.4 The State's prosecutor testified that he was not aware of the contamination of the Bexar County Forensic Science Center. However, when one of the prosecution team, for example law enforcement, is aware of material, exculpatory or impeachment evidence then that knowledge is imputed to the prosecutors. Thus, Joe Castorena's knowledge should be imputed to the State. However, this means that standard of review is preponderance of the evidence. It could be argued that as soon as the State was aware that it had conflicting evidence of accelerant on Bill Richardson's clothing it should have been on notice that the clothing sample evidence warranted further examination.
- 4.2.5 Sonia Cacy has proven by a preponderance of the evidence that the prosecution team's failure to disclose evidence of lab contamination was material impeachment evidence which in all reasonable probability would have changed the outcome of her trial.



## 5 Actual Innocence

### 5.1 Applicable Law

- 5.1.1 The United States Supreme Court has recognized two types of “actual innocence” claims: (1) a *Herrera*-type claim which is also known as a “bare innocence” claim; and (2) a *Schlup*-type claim which is not itself a constitutional claim but a gateway through which an applicant may make an otherwise barred constitutional claim. *See Herrera v. Collins*, 506 U.S. 390 (1993); *Schlup v. Delo*, 513 U.S. 298 (1995). According to *Herrera*, the burden on an applicant to show actual innocence is “extraordinarily high.” *Herrera* at 417. *Herrera* recognized that retrying a case on stale evidence placed an “enormous burden” on States and that only a “truly persuasive” demonstration of actual innocence would render an otherwise error-free trial unconstitutional. *Id.*; *see also Schlup* at 314. *Schlup* differs from a *Herrera*-type claim because the claim of innocence does not by itself give relief but rather provides a “gateway” through which other constitutional claims may be considered. *Schlup* at 315. The *Schlup* Court held that “Schlup’s evidence of innocence need carry less of a burden” and that “the evidence must establish doubt about his guilt to justify the conclusion that his execution would be a miscarriage of justice *unless* his conviction was the product of a fair trial. *Id.* at 316. The *Schlup* Court distinguished *Herrera*’s claim as a substantive claim of innocence and *Schlup*’s claim of innocence as procedural. *Id.* at 314.
- 5.1.2 The Texas Court of Criminal Appeals considered the Supreme Court’s approaches in *Herrera* and *Schlup* and adopted a clear and convincing evidence standard in *Ex parte Elizondo*, 947 S.W.2d 202 (Tex. Crim. App. 1996). Thus, an applicant presenting an actual innocence claim in Texas must “prove by clear and convincing evidence . . . that a jury would acquit him based on his newly discovered evidence . . .” *Elizondo* at 209.

### 5.2 Applicant’s Claims of Actual Innocence Are Supported

- 5.2.1 Sonia Cacy has presented newly discovered evidence that Bexar County Assistant Chief Toxicologist Joe Castorena knew that the Bexar County Forensic Science Center toxicology lab was contaminated with xylene and toluene. Although Castorena is the only witness to make this claim, and the claim is not supported by other evidence of contamination at the time of the analysis of clothing samples taken from Bill Richardson, this evidence would have cast reasonable doubt on the credibility of Castorena’s testimony at trial and the testimony of Chief Medical Examiner Robert Bux and Fire Investigator Steve Kenley, who both based their findings of homicide and arson respectively on Castorena’s finding of accelerant on Bill Richardson’s clothing.
- 5.2.2 The affidavit of Dr. Ytuarte, whom this court has found credible, is newly discovered evidence and also supports Applicant’s claims of false testimony.
- 5.2.3 In 1991 experts were available to testify that Joe Castorena’s analysis was incorrect and the data more likely indicated the presence of pyrolysis products than accelerant. The science behind the GC/MS is not newly discovered, but had Castorena been cross-examined at trial regarding the method of testing and the analysis results and his credibility impeached with information regarding the contamination of the lab in which he conducted his testing, a jury would be left with more than a reasonable doubt as to Sonia Cacy’s guilt.

- 5.2.4 After reviewing the reports and testimony of experts, all of which have been found credible by this court, and who have criticized Joe Castorena's analysis of the GC/MS data from the testing of Bill Richardson clothing, the consensus is that (1) poor testing technique was used when running the clothing samples from Bill Richardson through the GC/MS instrument; (2) the comparison of the clothing and gasoline standard samples' graphs for hydrocarbons revealed that many gasoline hydrocarbon peaks, which are the primary indicators for the presence of gasoline, were missing from the clothing sample; and (3) weak indicators of accelerant were present but are most likely the result of Bill Richardson's clothing coming in contact with burning household plastics, which contain petroleum products, and the pyrolysis products of those plastic materials were mistaken for the presence of accelerant.
- 5.2.5 This court recognizes that even when evidence contradicting the assertion that accelerant was present on Bill Richardson's clothing and contradicting the cause of death finding of thermal burns was presented to a new jury in the 1996 punishment retrial, Sonia Cacy did not receive a reduction in punishment but actually had her punishment increased by the jury. The newly discovered evidence of lab contamination would have allowed Cacy's defense counsel to impeach the credibility of Castorena's testimony and test results. The expert testimony refuting Castorena's finding of accelerant coupled with impeachment of Castorena's results by evidence of contamination would have resulted in a jury acquitting Cacy. Since that 1996 retrial the evidence contradicting the finding of accelerant and the thermal burns cause of death has gotten stronger. The findings of the State Fire Marshal's Office—a state organized and endorsed office—are the strongest evidence that no accelerant was present and that Bill Richardson likely died of a heart attack before being burned.
- 5.2.6 Although Joe Castorena has recently asserted that the Bexar County Forensic Science Center's toxicology lab was contaminated, Castorena contends that because the experts who reviewed his analysis did not know about the contamination, they were unable to properly critique his analysis. Castorena maintains that he took into account the contamination and was able to identify the presence of accelerant on the clothing sample from Bill Richardson. Whether or not the Bexar County Forensic Science Center's toxicology lab was actually contaminated is uncertain. However, if the toxicology lab was contaminated at the time the clothing sample was run through the GC/MS instrument, then the doubt as to the reliability of the results of Joe Castorena is greatly increased. If the lab was not contaminated at the time the clothing sample was run through the GC/MS instrument, then the substantial doubt created by Sonia Cacy's arson experts as to the reliability of Castorena's results remains. Regardless of whether or not the lab was contaminated, if Sonia Cacy's defense counsel had been able to cross-examine Castorena at either the 1993 or 1996 trials on the contamination, the impeachment of the State's sole scientific evidence of arson would have doomed the State's case against Cacy.

- 5.2.7 This court finds Sonia Cacy's evidence contradicting Joe Castorena's testimony that accelerant was found on Bill Richardson's clothing compelling. Had Sonia Cacy had the benefit of any expert testimony, she would have been able to cast reasonable doubt on the State's assertions that accelerant was present and that Bill Richardson died of thermal burns. Joe Castorena's admission that the Bexar County Forensic Science Center's toxicology lab was contaminated is critical. Had Castorena disclosed this information at trial, Castorena would have faced vigorous cross-examination on the reliability of his results and Castorena could have made his lab available for testing which would have confirmed the contamination.
- 5.2.8 Sonia Cacy's guilt hinged on Joe Castorena's finding of accelerant on Bill Richardson's clothing. Medical examiner, Dr. Robert Bux, testified that his autopsy report finding of homicide was influenced by Castorena's identification of accelerant, and arson investigator, Steve Kenley, also testified that his conclusion of arson, which was used by Fort Stockton's Police Department, was influenced by Castorena's identification of accelerant. The testimony of Bux and Kenley as well as Castorena himself was critical to the prosecution of Sonia Cacy. Thus, the finding of accelerant operated in a kind of domino effect which ultimately resulted in Sonia Cacy being accused of causing the death of her uncle, Bill Richardson. Now that the finding of accelerant is being properly questioned, this court believes that Sonia Cacy is actually innocent. The Texas Court of Criminal Appeals has previously declined to grant claims of actual innocence in cases of false evidence given by fire investigators, preferring to grant relief, if at all, based on due process violations inherent in false evidence. *See Ex parte Graf*, AP-77,003, 2013 Tex. Crim. App. Unpub. LEXIS 403 (Tex. Crim. App. 2013). However, Sonia Cacy's case is distinguishable from the *Graf* and other cases because this court has the benefit of the State Fire Marshal's Office report on the fire that caused the death of Bill Richardson. Although the courts reviewing *Graf* and other cases had expert reports that refuted the scientific evidence of arson in their original trials, the reviewing courts did not have a report from a state-endorsed agency like the State Fire Marshal's Office, which published an official report on the Cacy arson investigation and the cause of death of Bill Richardson.
- 5.2.9 The Forensic Science Commission issued a report in 2011 regarding the arson investigation in Ernest Ray Willis's case. The report found that the arson investigations in the case relied on faulty scientific evidence of arson and that Willis did not intentionally cause the fire which resulted in the deaths of others. Unfortunately, the Commission's report was published after Willis was released on October 6, 2004 based on federal habeas relief. *See Willis v. Cockrell*, No. P-01-CA-20, 2004 U.S. Dist. LEXIS 15950 (W.D. Tex. Aug 09, 2004) (following federal habeas relief, the charges against Willis were dismissed by Pecos County District Attorney, Ori White, who re-investigated the arson and found that the fire was the result of faulty electrical wiring). Furthermore, in an addendum to the Commission's report it is noted that since the time of the report's initial publication the Attorney General's Office issued an Opinion which limited the Commission's authority to investigate evidence to cases after 2005. Thus, the Commission's report lacks the authority that the State Fire Marshal's Office (SFMO) report in Sonia Cacy's case has because the Attorney General's Office has issued an Opinion stating the the SMFO did have the authority to issue a report in Cacy's case.

5.2.10 This is a case of first impression in which the Texas Court of Criminal Appeals will have the benefit of a state-endorsed agency investigation report which finds that the cause of the fire on November 10, 1991 was not caused by accelerant and that Bill Richardson died of sudden cardiac death secondary to severe ischemic disease. This court finds that the State Fire Marshal's Office report is **credible**. This evidence supports a finding of actual innocence.

### 5.3 State's Claim of Laches

- 5.3.1 The U.S. Supreme Court held in *McQuiggin v. Perkins* that a habeas court “should count unjustifiable delay on a habeas applicant’s part, not as an absolute barrier to relief, but as a factor in determining whether actual innocence has been reliably shown.” 133 S. Ct. 1924, 1928 (2013).
- 5.3.2 In *Ex parte Smith*, the Texas Court of Criminal Appeals held that a habeas court could *sua sponte* consider whether laches should bar an applicant’s claim. 444 S.W.3d 661 (2014).
- 5.3.3 *Ex parte Perez*, 398 S.W.3d 206, 218 (Tex. Crim. App. 2013), allows the habeas court to reject the State’s reliance on laches when the record shows that an applicant’s delay was not unreasonable because it was due to a justifiable excuse. Moreover, if the applicant is entitled to equitable relief for other compelling reasons, such as new evidence that shows she is entitled to the relief she seeks, then laches does not apply.
- 5.3.4 Applicant’s conviction was final in 1998. She was paroled that same year.
- 5.3.5 Several experts provided affidavits that were submitted to the Board of Pardons and Paroles suggesting that Bill Richardson died of a heart attack, not thermal burns and that there was no accelerant present.
- 5.3.6 By late 2001, Applicant’s case (and her claim of innocence) was being reviewed by experts and defense attorneys.
- 5.3.7 In 2010, Applicant’s defense team had evidently amassed enough material to support her claim for relief. They filed a complaint on her behalf with the Texas Forensic Science Commission on September 27, 2010, asserting that both the Bexar County Medical Examiner and Forensic Science Center misinterpreted the scientific data from the fire. In the complaint they included affidavits from ten national and international independent experts concluding, among other things, that there could not have been gasoline on Bill Richardson’s clothing.
- 5.3.8 In 2011, at the request of John Bradley (the presiding officer of the Forensic Science Commission), the Attorney General’s office issued an opinion stating that the Texas Forensic Science Commission had no authority to investigate matters occurring prior to 2005. As a result, Applicant’s complaint was given to the Scientific Advisory Workgroup of the State Fire Marshal’s Office to handle.
- 5.3.9 By 2012, Applicant’s attorneys had prepared her application for writ of habeas corpus and filed it on November 2, 2012, with the trial court.
- 5.3.10 It would appear that the State itself bears much of the responsibility for the delay. Joe Castorena, the Bexar County toxicologist who made the initial false finding of accelerant on Bill Richardson’s clothing, delayed telling anyone that the lab was contaminated for 17 years. Castorena knew the Bexar County Forensic Science Center toxicology laboratory was contaminated with xylene and toluene in 1993 when he tested the clothing samples but did not report this contamination until 2010 when he responded to a letter from Sonia Cacy’s habeas counsel.

- 5.3.11 The State has also contributed to the delay by vigorously opposing the report issued by the State Fire Marshal's Office on the evidence in Sonia Cacy's case, including asking the Attorney General's Office to issue an opinion on the SFMO's authority to conduct an investigation.
- 5.3.12 Based on the above, and because there is sufficient evidence to support Applicant's claims for relief, this court finds that the State's laches argument is without merit.

**RECOMMENDATION & ORDER**

For these reasons, this Court recommends to the Court of Criminal Appeals that the relief herein requested by Applicant, Sonia Cacy, be GRANTED.

The Clerk is ORDERED to prepare a transcript of all papers in this cause and to transmit them IMMEDIATELY to the Clerk of the Court of Criminal Appeals as required by Article 11.07, Section 9(f), of the Code of Criminal Procedure.

The Clerk is further ORDERED to serve a copy of these findings and this Order on Counsel for the Applicant and Counsel for the State.

DONE AND ENTERED this 3<sup>rd</sup> day of June, 2016.



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**THE HONORABLE BERT RICHARDSON  
SENIOR VISITING JUDGE SITTING BY ASSIGNMENT  
83<sup>RD</sup> DISTRICT COURT  
PECOS COUNTY, TEXAS**

# EXHIBITS



# EXHIBIT A

LETTER TO THE TEXAS FORENSIC SCIENCE COMMISSION

September 27, 2010

Texas Forensic Science Commission  
Sam Houston State University  
College on Criminal Justice CL 17  
P. O. Box 2296  
816 17th Street  
Huntsville, Texas 77341-2296

RE: Complaint on Behalf of Sonia Cacy

Dear Members of the Texas Forensic Science Commission:

Sonia Cacy is an innocent person who was convicted of an arson/murder and sentenced to life in prison. She did not commit arson or murder and did not cause the death of her beloved uncle Bill Richardson. Ms. Cacy was convicted based on the professional negligence or misconduct of the Toxicology Laboratory of the Bexar County Medical Examiner/Forensic Science Center. The Assistant Chief Toxicologist of the Bexar County laboratory misinterpreted a gas chromatography/mass spectrometry test on Bill Richardson's clothing and testified that there was gasoline on the clothing. In fact, as determined by no less than 10 independent experts, there was no gasoline on Mr. Richardson's clothing.

Ms. Cacy was tried and convicted by a jury in Pecos County, Texas in 1993. The jury heard none of the substantial testimony demonstrating the error in the analysis of the testing by the Bexar County laboratory. There is no doubt that if the jury had learned of the professional negligence and misconduct by the Bexar County laboratory, Ms. Cacy would not have been convicted.

Following Ms. Cacy's conviction, various attorneys and arson experts became aware of her case and volunteered their time to help correct this injustice. Among these volunteers were Dr. Gerald Hurst, a renowned arson expert, Austin Attorney Gerry Morris and Dallas Attorney George Milner. Most importantly, Austin Attorney Eric Rabbanian, who was a recent law school graduate, devoted countless hours to gathering evidence of Ms. Cacy's innocence for presentation to the Texas

Board of Pardons and Paroles, and in 1998, the parole board granted Ms. Cacy's parole after service of 6 years of a life sentence.

The material submitted by Mr. Rabbanian to the parole board included numerous expert reports refuting the claim that there was gasoline on Mr. Richardson's clothing. The state's case against Ms. Cacy was based on the claim that Ms. Cacy had poured gasoline on her uncle and set him on fire. The only evidence that supported this was the false conclusion by the Bexar County lab that there was gasoline on Mr. Richardson's clothing. The conclusive evidence presented to the parole board showing that the Bexar County lab's claim of gasoline on the clothing was demonstrably incorrect caused the board to take the highly unusual step of granting parole 6 years into a life sentence.

In addition to the numerous scientists and attorneys who took an interest in Ms. Cacy's case, various national and state media organizations also investigated the case. These included NBC News, ABC News and the Wall Street Journal. NBC/Dateline went so far as to hire their own independent experts who confirmed that there was no gasoline on Mr. Richardson's clothing.

The Innocence Project of Texas has spent the last year investigating Ms. Cacy's case. We have concluded that, since Ms. Cacy's conviction was based entirely on professional negligence or misconduct by the Bexar County Medical Examiners Office/Forensic Sciences Center, that the appropriate venue for a review of this matter is the Texas Forensic Science Commission.

We recognize that the mandate of the Forensic Science Commission is not to determine innocence or guilt and we are not asking you to do so in this case. Rather, we are asking the Commission to review the scientific testimony used to convict Ms. Cacy and determine if it was the result of professional negligence or misconduct.

We recognize that the Texas Forensic Science Commission has a difficult job and we commend you, and your commissioners for the important work you are engaged in. Thank you for your willingness to review this case.

Respectfully submitted,

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September 27, 2010  
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IN RE: § SUBMISSION TO THE  
§  
§ TEXAS FORENSIC  
§  
SONIA CACY § SCIENCE COMMISSION

**MEMORANDUM IN SUPPORT OF  
COMPLAINT REGARDING THE BEXAR COUNTY  
MEDICAL EXAMINER/FORENSIC SCIENCE CENTER**

**TO THE HONORABLE TEXAS FORENSIC SCIENCE COMMISSION:**

**NOW COMES** the Innocence Project of Texas on behalf of SONIA CACY and submits this Complaint Regarding the Bexar County Medical Examiner/Forensic Science Center.

**SUMMARY OF THE CASE AND COMPLAINT**

Sonia Cacy was convicted of arson/murder for allegedly dousing her uncle with gasoline, setting him and the house they lived in on fire and burning him to death. Sonia Cacy is absolutely innocent of this charge. Contrary to the erroneous testimony from the Bexar County Medical Examiner's Office, Toxicology Section, she did not kill her beloved uncle, she did not douse him with gasoline, and she did not set him or the house on fire. Irrefutable scientific evidence from some of the nation's leading experts have proven her innocence.

**Evidence of Professional Negligence or Misconduct by Bexar County Medical Examiner/Forensic Science Center**

Included with this Memorandum is significant evidence of professional negligence and misconduct by the Bexar County lab. This includes affidavits, scientific articles and

investigations by news organizations that all attest to the error in the laboratory analysis of Bill Richardson's clothing in this case. The evidence is as follows:

Exhibit 1      This notebook contains affidavits from various experts who have reviewed the testing performed by the Bexar County Medical Examiner/Forensic Science Center, Toxicology Laboratory, and concluded that their analysis and testimony concerning the presence of gasoline on Bill Richardson's clothing is absolutely incorrect and that, in fact, there was no gasoline present.

Exhibit 2      This notebook is the complete set of exhibits submitted to the Texas Board of Pardons and Paroles on July 4, 1998 in support of Sonia Cacy's parole request. This request for parole was subsequently granted.

Exhibit 3      This notebook contains the actual testing charts and testimony from the Bexar County lab personnel.

Exhibit 4      This exhibit is a DVD of a Dateline/NBC Program concerning Sonia Cacy.

### **Procedural History**

Sonia Cacy, was convicted of murder on February 26, 1993. The jury assessed her punishment at 55 years incarceration and a \$10,000 fine. She later appealed and won a new punishment trial. That trial resulted in a 99-year sentence.

As a result of the obvious problems with the evidence used to convict Cacy, local and

national scientific experts took an interest in her case. A team of attorneys represented Cacy *pro bono* on proceedings in front of the Texas Board of Pardons and Paroles. After presenting a comprehensive packet to the Board detailing extensive evidence in support of Cacy's innocence, Cacy successfully won her release from prison on November 23, 1998. She is currently on parole and living in Fort Worth, Texas.

### **Summary of the Facts**

The undisputed facts leading up to Cacy's arrest are as follows. In the early morning hours of November 10, 1991 a fire was reported in the small Fort Stockton, Texas home occupied by Cacy and her uncle, William Richardson (Uncle Bill). Authorities arrived at the scene to find portions of the house full of smoke and flames. Cacy had already escaped the home through a bedroom window, but Uncle Bill was still inside.

The first responder, a local police officer, attempted to enter the home by kicking down the front door, but he was unable to make it very far. This officer was forced to restrain Cacy, who attempted to enter the home with him. Later, additional officers arrived on the scene. The officers located a garden hose and used it to douse the flames and enter the house. They discovered Uncle Bill's body inside.

Pecos County Fire Chief, Jimmy Jackson, and representatives from the local volunteer fire department arrived at the scene shortly thereafter. At Jackson's direction, the firefighters used a fog spray to extinguish the remaining flames. They then used fans to expel the heat and smoke from the home.

Once the house was clear, Chief Jackson entered the home and confirmed that Uncle

Bill lay deceased on the floor in the corner of the living room; he had a metal object clasped in his right hand. Also in the room were two coffee tables, an overturned rocking chair, a bookcase and the melted frame of an aluminum cot. The bodies of two dogs were discovered as well: one in the hallway and one in a bedroom.

### **Trial Evidence**

#### **The Circumstances**

During the guilt innocence phase of Cacy's trial, the state argued that Cacy murdered Uncle Bill by dousing him with an accelerant and setting him on fire. This claim was based entirely on the erroneous conclusion by the Bexar County Medical Examiner's Office that gasoline was found on uncle Bill's clothing.

The state's first witness was Dois Clawson, a neighbor who awoke to knocking on her front door around 6:15 on the morning of the fire. Although no one was at the door when Clawson went to open it, she looked out her window to see Cacy walking around in circles in front of the burning home. When Clawson approached Cacy, Cacy told her that the house was on fire and that Uncle Bill was still inside.

When Dois went back outside, she discovered that Cacy had just broken two windows panes with her fists in an attempt to re-enter the house. Dois then pulled Cacy away from the window; she was concerned that the flow of air caused by the windows being opened would accelerate the spread of the fire. The two women then went to the window Cacy used to escape the fire earlier that morning. Cacy again indicated that she wanted to enter the house to find Uncle Bill. She leaned in to the opened window but backed away as a result of smoke



in the room.

Later, Dois with the assistance of a police officer, took Cacy to her house. According to Dois, Cacy was very emotionally upset. Dois held on to Cacy's arm, but Cacy knocked over a lamp in Dois's living room while trying to escape the home and go back outside toward the burning house. Dois testified that:

Q. And do you remember what the policemen did when they arrived?

A. One of them had to help me to calm her down in the front yard because I could not hold her. I couldn't hold on to her and keep her away from the house. She kept insisting on trying to go back in the house.

Q. When the other policemen arrived, did this Defendant stay by the side of the fire, or what did she try to do?

A. She tried to – to stay at the fire. She tried to go back into the house, even after the fire department got there. (25)

Likewise, Officer Robert Curtis, the first officer to arrive on the scene described Cacy as “very uncooperative.” He stated that Cacy was “scratching, trying to get back into the house, ... , and she was highly emotional, crying, and just struggling, trying to break loose.”

Ultimately, officers placed Cacy in the back of a patrol car in order to calm her down and prevent her from re-entering the home. Dois testified that Cacy was “mad” at the officers. Officers on the scene acknowledged that Cacy was kicking and cursing at them. On one occasion, Cacy shoved Betsy Spencer, the police department's victim's services coordinator who had arrived on the scene to consult with Cacy.

There was also evidence of previous fires at Bill Richardson's house. One of those fires occurred in the early morning hours of November 2<sup>nd</sup> in the home's office area. It originated in a box of electrical devices located underneath a window and draperies, which eventually caught fire. Officer Villesca responded to the call and was able to extinguish the

fire with a hose. Fire Chief Jimmy Jackson, who also investigated that event, noted in his report that both Cacy and Uncle Bill thought that someone broke into the home and set the fire.

Another fire occurred in the storeroom on the back side of the same property on the same day as the office fire. During his investigation of this event, Chief Jackson inquired into Cacy and Uncle Bill's possessions. He discovered that Uncle Bill had few personal possessions that would be attractive to an intruder; however, in addition to the house, he also owned real property in the form of a few acres of land with a small oil production operation. At the time, Uncle Bill relayed to the Chief that the land was costing him more than it was producing in income. He also told the Chief that he did not have a will. In fact, Uncle Bill had absolutely no assets at all, disproving the state's claim that Cacy murdered him for his money.

### **The "Science"**

#### ***The Fire Marshal***

At trial, the state called Fort Stockton Fire Marshal Frank Salvato to the stand. Salvato examined the scene of the fire and analyzed the burn and smoke patterns in the home. He testified that the living room was the area of origin for the fire; however, there were no signs that the fire began as a result of an electrical failure, gas leak or explosion, or weather conditions. Salvato testified that the smoking was the only natural or accidental cause that could not be ruled out as the cause of the fire.

### ***The Medical Examiner***

The state also called Dr. Charles Bux, a Deputy Chief Medical Examiner for Bexar County. Dr. Bux was responsible for examining the body of Bill Richardson. He testified that he located soot in the oral cavity and nose of the deceased. However, the soot did not extend into the windpipe, lungs, or nasal passages. This, Dr. Bux asserted, was an indication that the deceased was alive at the time the fire started.

Dr. Bux also confirmed that the deceased's lungs were edematous, heavily congested, and that they contained a bright red frothy fluid. He testified that these conditions could have resulted from the smoke and that they were an indication of acute congestion and rapid heart failure. During cross-examination, he admitted that the condition of the lungs and carbon monoxide levels detected in the deceased's blood could also result from years of heavy smoking. At the time of his death, Uncle Bill was 76 years of age and smoked, on average, two to three packs of cigarettes per day.

### ***The Bexar County Toxicologist***

Joe Castorena, Bexar County's Assistant Chief Toxicologist testified regarding the testing of clothing remnants collected from the deceased's body. He said that atomic absorption is the technique used to detect whether accelerants are present on a particular item or piece of clothing. After performing the analysis on the items of clothing submitted in relation to this case, Castorena claimed that the test showed the presence of a Class II accelerant, like gasoline, gasohol or some types of Coleman fuels.

### ***The Fire Investigator – Consultant***

Like Castorena, fire investigator and President of AID Consulting Engineers, Gary Gillmore, also received several pieces of evidence collected in relation to the fire investigation. His chemists were requested to analyze that evidence to determine whether an accelerant was present. They tested carpet remains from underneath the body of the deceased, carpet remains from underneath the aluminum cot found burned in the living room, and the remains of a foam pillow. All tests yielded the same result. The results were negative as no traces of an accelerant were found.

### ***The Ozona Fire Marshal***

John Kenley, the Ozona Fire Marshal, also testified about his investigation of the scene of the fire. Specifically, he testified that the pattern of the fire was consistent with a fire caused by an accelerant.

In support of these theories, he noted that the rafters above the body in the living room were charred and that the heat source for that charring was the body itself. He also asserted that the human body is not very combustible and that it does not burn easily absent the presence of an accelerant. Finally, he explained the lack of accelerants located underneath the body and cot. He stated that traces of the accelerant in those areas could have burned up in the fire and therefore would not have been detected by forensic testing. Despite all of this, he acknowledges during cross-examination that he did not come to the realization that the home was a crime scene until he received the medical examiner's report.

## **Defense Evidence**

### **The Circumstances**

In response to the state's case against Cacy, the defense put on a handful of witnesses who testified to the close and caring relationship between Uncle Bill and Cacy and who spoke to other circumstances suggesting that Cacy is innocent of the crime of murder.

During the trial, William Cacy, Cacy's son, testified that Uncle Bill was a poor man. His oil leases were not producing a profit, and his truck was in poor condition with more than 150,000 miles: facts that would call into question any alleged motive for Cacy to murder Uncle Bill in order to collect on a will which would have also provided her with the uninsured house destroyed during the fire. In addition, William Cacy testified that he observed Uncle Bill drafting his will by hand. He did so, William Cacy said, a day after he experienced tingling in his arm – a symptom William Cacy told Uncle Bill could be indicative of an oncoming heart attack. According to William Cacy, Uncle Bill wasn't feeling well, an observation that could explain the informal drafting of the will and the will's opening statement: "I, Bill R. Richardson, feel like I may die tonight."

Perhaps most tellingly, William Cacy responded to questioning by describing Uncle Bill's odd behavior with fire. He testified that Uncle Bill would use a small propane torch to light a furnace in the home. He would also use the torch to roast marshmallows while sitting on his recliner. In addition, Cacy testified that Uncle Bill was a very heavy smoker. At times, he was careless and would light a second cigarette while the first still burned in his hand.

William Cacy even described an accident Uncle Bill had once when he used the furnace to heat up a paint can. He forgot about the can, so it caught fire and burned. Uncle Bill, William Cacy explained, was embarrassed after this event occurred. Cacy noticed the same level of embarrassment when Uncle Bill told him about the small office fire that occurred just a little more than a week before the deadly fire that took his life.

In addition to Cacy's testimony, defense witness Joy Grant, another of Uncle Bill's nieces, spoke about how Cacy was very close with Uncle Bill. Cacy, she said, was Uncle Bill's caretaker.

### **Post-Trial Investigation**

#### **The Science**

Subsequent to the conviction of Cacy, several forensic experts studied the physical evidence in this case and determined not only that the deceased died of a heart attack prior to the fire, but also that there were no accelerants detected during the testing of the decedent's clothing, the key to the prosecution's case. In addition, fire investigation experts have disproven the state's "fireball" theory in the years since Cacy's conviction. Modern fire investigation protocols indicate that the fire in this case is explained by the materials found at the scene.

#### ***Death by Heart Attack, NOT Fire***

The prosecution's theory of the case is that Cacy doused the deceased with gasoline and set him on fire causing his death. Dr. Bux, the Medical Examiner who examined Uncle Bill's body, concluded that the man died of multiple burn wounds; however, a subsequent

review of the evidence by several experts indicates that Uncle Bill actually suffered a heart attack prior to the fire starting.

- One such expert was Dr. Edward Friedlander, Chairman of the Department of Pathology at the University of Health Sciences. Dr. Friedlander discovered the following: There was no soot in the deceased's larynx or trachea (this fact alone rules out death by fire);
- The high lung weight indicating pulmonary edema was inconsistent with death by incineration;
- The low carbon monoxide levels of the blood were inconsistent with death by fire;
- The severe coronary atherosclerosis detected in the deceased were signs of a sudden cardiac death; and
- The marked congestion of the liver did not support a theory of a fire-caused death.

Based on these observations and data, Dr. Friedlander concluded that Richardson died of a heart attack with incineration of the body occurring afterwards. Other experts in the field have come to the same conclusion, independent of Dr. Friedlander. They include Dr. Ronald Wright, a board certified pathologist with 25 years of experience who serves as Director of the Division of Forensic Pathology of the University of Miami School of Medicine, and Dr. Scott Denton, Deputy Medical Examiner for Cook County, Illinois.

Applying these expert reports to the facts of this case supports the defense's theory that Uncle Bill suffered a heart attack thus causing him to drop his cigarette, igniting a fire in the living room. Both Drs. Wright and Denton referred to the deceased's addiction to

cigarettes as a potential cause of the fire. Uncle Bill was known by his family and friends to be a heavy and careless smoker. Even John Kenley, the fire investigator who testified on behalf of the state, describes in his report the deceased's carelessness with cigarettes and the scores of cigarette burns found on various pieces of furniture in the home.

***No Accelerants Found on the Deceased's Clothing***

The only item of physical evidence allegedly indicating that an accelerant was used by Cacy to set Uncle Bill on fire was from a testing report prepared by the Bexar County Medical Examiner's Office. According to the testimony of Joe Castorena, the Assistant Chief Toxicologist for Bexar County, a test of the deceased's clothing tested positive for a Class II accelerant. Although Castorena initially testified that he personally conducted this testing, he acknowledged during Cacy's second punishment trial that the test was actually conducted by analyst Robert Rodriguez.

According to Castorena's report detailing the results of the gas chromatography/mass spectrometry test, a Class II accelerant was found in the sample labeled "Case No. ME: 1578-91, Pants/Underwear." However, the jury never had the chance to hear evidence that the results of the test actually indicate the opposite of Castorena's report. There was no accelerant found. This information was discovered by several experts who reviewed the evidence in Cacy's case *pro bono* after her conviction was obtained.

These experts, who analyzed the *same* Bexar County Forensic Lab gas chromatography/mass spectrometry test results on the sample tested by Robert Rodriguez, and testified to by Joe Castorena, came to the conclusion that results do not indicate the



presence of gasoline or any other form of accelerant. Dr. Richard Henderson, a certified fire investigator who has been actively involved in the chemical analysis of fire debris for more than 20 years, is one of those experts. In his report, he noted the very common error of mistakenly attributing the presence of gasoline to pyrolysis patterns seen in fire debris. Likewise, Dr. Gerald Hurst analyzed the Bexar County lab's data and came to the same conclusion. The results do not indicate an accelerant was found on the deceased's clothing. Rather, they are representative of pyrolysis products.<sup>1</sup>

In fact, at the state's own request, samples from the same underwear tested by the Bexar County lab were later sent in a metal container to AID Laboratories in Dallas, an independent forensics lab. The prosecution requested that the lab test the contents of the container for signs of an accelerant using more sophisticated techniques than those possessed by the Bexar County lab. The sample was labeled ME 1578-91, the same sample number as the evidence tested by Rodriguez and later testified to by Joe Castorena. The results of the AID test coincide with the expert opinions of Drs. Hurst and Henderson. There was no sign of an accelerant on the samples tested.

### ***Fireball Theory Impossible, Fire Explained by Materials at Scene***

The jury that convicted Cacy was told by the state that burn patterns and smoke evidence indicated that the fire in this case was started by the burning of an accelerant. The state's witness, investigator John Kenley, testified that the gasoline-produced fire created a

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<sup>1</sup>Other experts who also concluded that there were no accelerants on the clothing were Dr. Richard W. Henderson, Laurel V. Waters, Dr. John d. DeHaan, Gary Gilmore, John J. Lentini, Dr. Andrew Armstrong, Drik L. Hedglin, Dennis C. Akin, Anthony Dennis Café, and Craig A. Balliet

fireball that rose like a chimney to the rafters above the living room then came back down to singe Cacy's hair. Experts who have reviewed evidence collected and observed at the scene have since come to a contrary theory. In fact, they contend that the state's theory is impossible and that the fire is explained by the materials at the scene.

Arson investigators Ken Gibson, Gary Fye, and Dr. Gerald Hurst reviewed the fire scene, studied photos and reports, and examined the transcripts from both the original trial and the second punishment trial. They each concluded that burn patterns, cited by the prosecution as evidence of arson, were actually the result of the burning of items in the house such as the curtains and polyurethane mattress that caught fire and fell to the ground.

In addition, experts Gibson and Hurst find the state's fireball theory to be considerably flawed. In fact, gasoline initiated fires, according to these experts, do not produce bouncing fireballs. Instead, when gasoline mixes with air, a flash fire can occur. The resulting flash of fire would seriously or fatally burn anyone caught in the midst of the fire. This means that it would have been impossible for Cacy to douse Uncle Bill with gasoline then set him on fire without serious physical consequences (much more significant than singed hair or soot on the face).

### **CONCLUSION**

The evidence presented by the experts who have come forward since the time of Cacy's trial show, beyond any question, that she is absolutely innocent of these charges. The only substantive evidence against Cacy was the claim by the Bexar County Medical Examiner's Office, Toxicology lab that there was gasoline on Bill Richardson's clothing.

This conclusion has been shown to be false. Based on this professional negligence and misconduct by the Toxicology Section of the Bexar County Medical Examiner's Office, The Innocence Project submits this complaint to the Texas Forensic Sciences Commission.

Respectfully submitted,

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# EXHIBIT B

AFFIDAVIT OF DR. LARRY YTUARTE

STATE OF NEW MEXICO

§

COUNTY OF Dona Ana

§

**AFFIDAVIT**

§

**BEFORE ME**, the undersigned authority, on this day personally appeared Dr. Larry Ytuarte, who, after being by me duly sworn, upon oath said:

My name is Dr. Larry Ytuarte. I am over the age of 18 and competent to make this affidavit. From September of 1990 to September of 1994, I worked at the Bexar County Forensic Science Center in San Antonio, Texas as a forensic toxicologist. When I worked at the Bexar County Forensic Center, I did not work on the Sonia Cacy case. However, from being in the lab when the work on her case was ongoing, I had personal knowledge of the following facts.

In November of 1991, a sample of burned clothing removed from the body of Bill Richardson (Case # ME 1578-91, autopsy performed by then Medical Examiner Robert Bux) was delivered from the autopsy room to the toxicology lab. The Medical Examiner was requesting an arson analysis. The clothing sample was sent with an evidence receipt form. The person in the toxicology lab who received the sample never signed or initialed the evidence receipt form. In 1993, as the Sonia Cacy trial was approaching, Assistant Chief Toxicologist Joe Castorena typed up an evidence receipt form for the sample and submitted it. It was meant to appear like it was an evidence receipt from 1991 when the sample had come into the toxicology lab, but Castorena made a mistake and typed "1993" instead of "1991" on the form. When he

realized his mistake, Castorena typed out a "corrected version," this one showing the year as 1991, and submitted that one as well.

On November 18, 1991, that clothing sample was analyzed for accelerants by toxicologist Robert Rodriguez. Prior to the completion of the arson analysis, Rodriguez and Castorena discussed the case with me. They told me that Mr. Richardson had been murdered by Ms. Sonia Cacy. Castorena offered a theory as to Ms. Cacy's motives for the murder and explained to me how she had piled furniture on Mr. Richardson, doused him with gasoline, and set him on fire. Rodriguez, who performed the analysis, told me that he was very upset that Ms. Cacy had killed two dogs in the process of committing the murder. It was clear from their words that both Rodriguez and Castorena already believed Ms. Cacy was guilty of the crime before the arson analysis had been carried out.

The analysis used by Rodriguez involved a "purge and trap" technique, and gas chromatography/mass spectrometry. The result of the analysis was an unambiguous **none detected**, meaning no accelerant was found in the clothing remnants. When I discovered that Castorena identified the analysis as positive for the presence of an Class II accelerant, I took a look at the actual instrumental data: the GC/MS chromatograms. In the past, I had been told by Rodriguez, and Jeff Todd (the chemist who was performing arson analyses before the task was handed to Rodriguez), that arson analysis results depended on "pattern recognition." According to Rodriguez and Todd, "pattern recognition" meant comparing chromatograms of samples of actual gasoline (or other accelerants) with chromatograms obtained from the sample submitted for analysis. When I compared them, I could see that they did not match. There was no "pattern" to "recognize" between the genuine sample of gas and the Richardson sample. But I had never performed an arson analysis, nor had I been required to interpret arson analysis data.

It was just my opinion. It wasn't until I learned that Gerald Hurst and many other arson experts looked at that actual data and said that there was no evidence of gasoline in the sample that I knew that my opinion was correct. I learned that Hurst and the other experts had looked at the data and expressed their opinion in approximately 1998.

Castorena testified at trial that he had performed the analysis and that the analysis had found the presence of a Class II accelerant (gasoline is a Class II accelerant). **Both statements are false.** Rodriquez had performed the analysis, and no accelerant had been found. Castorena also submitted documents as evidence which claimed he had performed the analysis and that an accelerant had been found.

In September of 1994, I was fired from the Bexar County Crime Lab for going to the Bexar County Commissioners Court, the Bexar County District Attorney's Office, and the American Academy of Forensic Sciences with a variety of complaints about the crime lab. These complaints included the fabrication of results, the falsification of chain-of-custody documents, and the use of scientifically worthless testing methods. I sued Bexar County under the Texas Whistleblower laws, and in July of 1997 the matter ended in a settlement which included the term that I not be bound by any rules of nondisclosure regarding the facts of my lawsuit. One example case, that I identified as a basis for my claims was Case #ME 1578-91, of the deceased, Bill Richardson.

I did not work on this case in an official capacity at the Bexar County crime lab. Accordingly, my identity and my knowledge of Ms. Cacy's case were unknown to Ms. Cacy and her trial counsel at her trial in 1993 and also at her second punishment hearing in 1996.

In late 1998 and early 1999, I wrote Ms. Cacy telling her what I knew about these facts. Prior to that time, I had never discussed this case with Ms. Cacy or her lawyers.



Dr. Larry Ytuarte  
Dr. Larry Ytuarte

BEFORE ME, the undersigned authority, on this day personally appeared Larry Ytuarte, known to me to be the person whose name is subscribed to the forgoing instrument, and after being duly sworn by me did state upon oath that the facts contained in said instrument are true and correct.

SUBSCRIBED AND SWORN TO before me on this the 24<sup>th</sup> day of August, 2012.

Kate Daackes  
Notary Public in and for  
The State of New Mexico

My commission expires:  
October 9<sup>th</sup>, 2015

# EXHIBIT C

STATE FIRE MARSHAL'S OFFICE LETTERS



**Texas Department of Insurance**

State Fire Marshal's Office, Mail Code 112-FM  
333 Guadalupe • P. O. Box 149221, Austin, Texas 78714-9221  
512-305-7900 • 512-305-7910 fax • www.tdi.texas.gov/fire

VIA CERTIFIED MAIL/RRR

August 20, 2013

District Attorney Rod Ponton  
83<sup>rd</sup> Judicial District, Pecos County  
103 West Callaghan  
Fort Stockton, TX 79735

REF: Sonia J. Cacy  
MURDER CONVICTION, February 26, 1993

Dear: District Attorney Ponton,

The Science Advisory Workgroup, established in 2013 by the Texas State Fire Marshal's Office, is presently reviewing significant arson case prosecutions questioned by the Innocence Project of Texas. The members of the Science Advisory Workgroup are: Dr. John DeHaan, Dr. David Icove, Mark Goodson, P.E., Dr. Nizam Peerwani, Thomas Sing, and Kathleen Crouch. Attached are brief descriptions of their backgrounds and expertise.

A primary purpose of this workgroup is to provide case reviews of arson prosecutions in Texas to determine whether the investigation complies with the most current scientific and engineering standards of care in the fire investigation field.

On April 9, 2013, with support of administrative and investigative personnel of the Texas State Fire Marshal's Office and a representative from the Innocence Project of Texas, the Science Advisory Workgroup reviewed the above referenced case. The prosecution of this case was handled by your office.

The objective of the case review was to examine whether the prosecution of this case would withstand the scrutiny of present-day forensic fire science and engineering principles involving fire investigation. This review included a complete assessment of the available investigation reports, statements, court documents, transcripts, evidence, photographic records, and appellate filings, if applicable, in this matter. The review did not include assessment of any other evidence. Most importantly, this case review applied the most current standards of care in the fire investigation field.

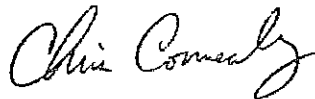
It is the finding of the Science Advisory Workgroup that the conclusions regarding the cause of the fire by the Fort Stockton Fire and Police Departments and the Texas State Fire Marshal's office are not supportable under the present day scientific standards of care for conducting a fire investigation. The interpretations of the gas chromatographic data regarding the alleged identification of gasoline by the Bexar County Forensic Science Center are not supported by present-day laboratory analytical standards. Therefore, the cause of the fire should be listed as undetermined. My office holds these findings as the best and most current independent review of the fire science in this case.

Further, based on the postmortem findings detailed by Dr. Robert Bux which show absence of inhalation of smoke, no evidence of heat damage to the tracheobronchial tree especially airways proximal to laryngeal level, including variable degree of vesicular detachment of mucosa, mucosal hyperemia, mucosal edema and increased mucus secretion, and low levels of postmortem carboxyhemoglobin, there is no scientific evidence to support the opinion that William R. Richardson was alive when the fire broke out. Therefore, the more likely cause of death of William R. Richardson was sudden cardiac death secondary to severe ischehmic heart disease.

Additionally, the findings of the Science Advisory Workgroup will be made available to the public, subject to the Public Information Act.

Please feel free to contact this office should you have any questions regarding this matter.

Sincerely,



Chris Connealy  
STATE FIRE MARSHAL

cc: Texas Court of Criminal Appeals  
Investigative File  
Innocence Project of Texas

**State Fire Marshal Office**  
**Science Advisory Workgroup**

**Kathleen Crouch**

Ms. Crouch is an attorney with the law firm of Nistico, Crouch & Kessler, P.C. She received her undergraduate degree in 1980 from Texas A & M University and graduated *magna cum laude* from South Texas College of Law in 1987. She started her law career at Fulbright & Jaworski L.L.P, leaving in 1994 to start Nistico & Crouch, P.C. She is "AV" rated by the Martindale-Hubbell Law directory.

Ms. Crouch's practice consists of representing insurance carriers in cases involving suspected insurance fraud, insurance contract coverage litigation and "bad faith" allegations. Ms. Crouch has been a speaker on insurance related topics at numerous Continuing Legal Education seminars, Texas Department of Insurance certified claim representative training programs and other seminars or topics involving first party duties, insurance fraud, Texas Insurance Code compliance, evidentiary privileges and insurance claim investigation.

**Mark Goodson, PE**

Mark Goodson received a BSEE degree from Texas A&M in 1979. He is been licensed as an engineer in Texas since 1984. He is licensed in both mechanical and electrical engineering, and is licensed in 13 states.

Mr. Goodson has published over 30 articles on forensics and fire investigation. From 1982 to 1986, he studied fire protection engineering and forensics. From 1989 to 1991, he served as a Court Special Master. Since 1984, he has been the principal in the firm Goodson Engineering of Denton. He was the first PE to serve on the State of Texas Electrical Board. He has testified as an expert in excess of 400 instances.

Mr. Goodson holds three patents relating to fire safety, and has three more pending. He serves as a consultant to numerous public sector agencies. He is a peer reviewer for *Fire & Arson Investigation Journal*. He also serves on the University of North Texas Forensics Advisory Panel and is a member of the BATF National Response Team.

### **John DeHaan, PhD**

An internationally recognized forensic science expert, Dr. DeHaan is the author of Kirk's Fire Investigation, the leading textbook in the field of fire and arson investigation. He is also a former principal member of the NFPA 921 Technical Committee on Fire Investigation. He is the co-author of several textbooks, including Forensic Fire Scene Reconstruction.

Dr. DeHaan has been a criminalist for over 42 years and has been employed as a criminalist by the Alameda County Sheriff's Office, the U.S. Treasury Department, and the California Department of Justice. His research into forensic fire scene reconstruction is based on first-hand fire experiments on fire behavior involving over 500 observed full-scale structure, and 100 vehicle fires under controlled conditions, as well as laboratory-scale studies. Dr. DeHaan has testified as an expert witness in civil and criminal trials across the United States and overseas.

Dr. DeHaan graduated from the University of Illinois—Chicago Circle in 1969 with a B.S. degree in Physics and a minor in Criminalistics. He was awarded a Ph.D. in Pure and Applied Chemistry (Forensic Science) by Strathclyde University in Glasgow, Scotland, in 1995. Dr. DeHaan is a Fellow, American Board of Criminalistics (Fire Debris), and holds Diplomas in Fire Investigation from the Forensic Science Society and the Institution of Fire Engineers and a Certified Fire Investigator certification from the International Association of Arson Investigators.

### **David Icove, PhD, PE**

Dr. Dave Icove is an internationally recognized expert on fire and arson investigation. Recruited by the FBI in 1983 to become one of their first criminal profilers at the Behavioral Science Unit in Quantico, Virginia, Dr. Icove developed the present-day motive classification system for arsonists. He has a PhD in Engineering, is the co-author of several textbooks including Forensic Fire Scene Reconstruction, Kirk's Fire Investigation, and Combating Arson-for-Profit. He has testified as an expert witness in federal and state courts, including three times before U.S. Congressional Committees regarding arson legislation.

Retiring in 2005 as a Federal Law Enforcement Agent from the U.S. Tennessee Valley Authority Police, Dr. Icove is now a Research Professor in the College of Engineering at the University of Tennessee, Knoxville; and a Reserve Deputy in the Fire Investigations Unit of the Knox County Sheriff's Office. He is a licensed Professional Engineer in eleven states and was recently elected a Fellow in the Society of Fire Protection Engineers.

#### **Nizam Peerwani, MD**

Dr. Peerwani serves as the Chief Medical Examiner for the counties of Tarrant, Parker, Denton and Johnson. He is also a professor at Texas Wesleyan University in Fort Worth, Texas. Dr. Peerwani received his undergraduate degree from the American University of Beirut (BS, 1972) and his medical degree from American University of Beirut (MD, 1976). Dr. Peerwani completed his residency in the Pathology Department at Baylor University Medical Center in Dallas, TX (1976-1980). He has been licensed in the State of Texas since June 1977. He is board certified in Anatomic & Clinical Pathology (1980) and Forensic Pathology (1981).

Dr. Peerwani is a Fellow of the American Academy of Forensic Science, College of American Pathologists and American Society of Clinical Pathologists and a member of the Texas Medical Society, Tarrant County Medical Society and National Association of Medical Examiners.

He has received awards from UNTHSC, Fort Worth (three times), Attorney General, State of Texas, 1989 and 1992, Federal Bureau of Investigation, 1993 (for handling of Waco Disaster) and Humanitarian Award, Physicians For Human Rights, 2006. He is on the editorial board of the American Journal of Forensic Medicine and Pathology and serves on the Texas Forensic Science Commission (2009 – current).

Dr. Peerwani was the lead pathologist investigating the deaths at Mt Carmel (outside Waco, McLennan County, Texas) in 1993 and testified in the federal trial in San Antonio. He is an advocate of human rights with missions to various parts of the world including Guatemala, Bahrain, Bosnia, Rwanda, Cyprus, Occupied West Bank, Afghanistan, Indonesia, Togo, Iraq, and Libya under the auspices of the Physicians For Human Rights (Boston), the United Nations High Commission for Human Rights, the International Criminal Tribunal for Rwanda and International Criminal Tribunal for former Yugoslavia as well as Rigoberta Manchu Foundation (Guatemala). He has previously served on State Commission on Child Fatality and currently serves on the Texas Forensic Science Commission (past presiding officer).

#### **Thomas Sing**

Thomas B. Sing has thirty years of experience as a fire and arson investigator for local, state and federal agencies. Mr. Sing holds Master certifications as a fire investigator, fire safety inspector, and Texas Peace Officer. He has testified as an expert in State and Federal District Courts and in United States Military Courts Martial proceedings. His experience in fire and explosion investigations including motor vehicles, privately and commercially owned marine vessels, multi-family living complexes, industrial facilities, oil and gas facilities, commercial

businesses which included high-rise buildings and mercantile shopping complexes and complex and large-scale wildfires. Mr. Sing has taught and lectured fire science and fire investigation courses at various Fire and Law Enforcement academies, and fire investigation and insurance seminars across the state of Texas.





## **Texas Department of Insurance**

State Fire Marshal's Office, Mail Code 112-FM  
333 Guadalupe • P. O. Box 149221, Austin, Texas 78714-9221  
512-305-7900 • 512-305-7910 fax • [www.tdi.texas.gov/fire](http://www.tdi.texas.gov/fire)

VIA CERTIFIED MAIL/RRR

FAX: 432-336-8333

March 21, 2014

Mr. Donald J. McCarthy  
Assistant District Attorney  
83<sup>rd</sup> Judicial District, Pecos County  
400 South Nelson Street  
Fort Stockton, TX 79735

REF: Sonia J. Cacy  
MURDER CONVICTION, February 26, 1993

Dear Mr. McCarthy:

This letter is a response to your December 11, 2013 letter, specifically to the questions you asked to be addressed by Dr. DeHaan, Mr. Goodson, Dr. Icove, Dr. Peerwani and Mr. Sing. Dr. DeHaan previously responded on January 3, 2014 to the questions posed to him individually.

### **Questions to Dr. Peerwani and Response:**

(1) Could the lack of soot in the lungs and/or damage to the tracheobronchial tree, and the relatively low carbon monoxide level, be the result of an extremely rapid burning of the body, or, put another way, assuming only for argument's sake a "flash fire" that very rapidly consumed the body, would that explain the lack of soot, tracheobronchial damage and the carbon monoxide levels?

### **Response:**

When a body exhibits lack of soot in the tracheobronchial tree and very low or absent carbon monoxide, there are two possible explanations:

- a. The victim died due to causes other than fire and was already dead before the start of fire.
- b. Death is due to flash fire.  
In a rapidly evolving flash fire, there is enormous amount of heat generated with very high thermal flux. In such a setting, there is significant thermal airway damage especially within the proximal airways. The Decedent did not exhibit any damage to the airways.

(2) Is your opinion that "the more likely cause of death of William R. Richardson was sudden cardiac death secondary to severe ischemic heart disease" essentially a logical deduction stemming from the conclusion of the fire scientists that no "flash fire" occurred?

**Response:**

The logical deduction is based on:

- a. Absence of evidence to support occurrence of a flash fire by fire scientists.
- b. Absence of anatomic evidence during autopsy to support flash fire.

**Questions to Mr. Goodson, Dr. DeHaan, Dr. Iove and Mr. Sing and Responses:**

(1) Would it be correct to say that the Workgroup is not criticizing the Fort Stockton Fire and Police Departments and Texas State Fire Marshal's Office for failure to meet the scientific standard of 1991-93?

**Response:**

The Workgroup is not criticizing the Fort Stockton Fire and Police Departments or the Texas State Fire Marshal's Office for their investigation and analysis of the fire scene; however, their final conclusions relied on Bexar County forensic experts. The erroneous conclusions of the medical examiner took the investigators down the wrong path. The scene investigators took the faulty conclusions of their experts and blended them with their own: (1) misconceptions about smoke exposure and the fire damage to the body; and (2) preconceptions about people escaping from a fire and the reliability of oral statements about what one remembers when one awakens from a deep sleep. Thus, the investigation ultimately resulted in an unreliable conclusion. To be compliant with the scientific method, once the criticism of the forensic analysis by the Bexar County Lab is added to the data known today, the determination of the fire cause must be re-visited. With the probability of the laboratory analysis being in error, the fire cause is without basis and also would be reclassified as undetermined.

(2) Would it be correct to say that the Workgroup is not criticizing the Bexar County Forensic Science Center for failure to meet the scientific standards of 1991-93?

**Response:**

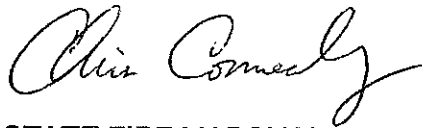
Please see Dr. DeHaan's January 3, 2014 letter which addresses this issue. The Workgroup is in agreement with his response. We further note that the standards used by Dr. DeHaan and Dr. Peerwani are not standards that have changed as a result of the passage of time.

With regard to the Bexar County Medical Examiners, in the 1990s as it is today, the practice of medicine is based on opinions rendered by practicing physicians. The American Academy of Forensic Sciences does not have written guidelines regarding medical conclusions. While the Workgroup is not necessarily criticizing the Bexar County Medical Examiners, their conclusions were not based on science.

Additionally, we recognize that a fire investigator's reliance on the adjunct investigator/scientist has to have a certain level of acceptance. However, if the evidence becomes overwhelming that the adjunct investigator/scientist is in error, the criminal investigator/fire analyst must reconsider the data that is presented and adjust his or her conclusion/opinion according to the weight of that evidence.

Please feel free to contact this office should you have any questions regarding this matter.

Sincerely,

A handwritten signature in cursive script, reading "Chris Conneally".

STATE FIRE MARSHAL

cc: Investigative File  
Fort Stockton Police Department  
Fort Stockton Fire Department  
Innocence Project of Texas

# FIRE-EX FORENSICS INC.

John D. DeHaan, Ph.D., FABC, CFI, FSSDip, FIFireE  
*Consulting Criminalist*

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Vallejo, California 94590  
707-643-4672  
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January 3, 2014

Rod Ponton  
83<sup>rd</sup> District Attorney  
400 South Nelson St.  
Ft. Stockton, TX 79735

Re: Sonia Cacy

Dear Mr. Ponton,

At your request, I have assembled the gas chromatography/ mass spectrometry (GC/MS) data that I reviewed over the years I have been involved in this case. I was first contacted by Dr. Richard Henderson of South Carolina in November 2001 when he requested a technical review of Mr. Catorena's data and conclusions. I was contacted by Mr. Walter Reaves some years later regarding my opinions of the GC/MS analysis. I was asked to review the scientific aspects of the entire case when it was presented to the Texas State Fire Marshal's Scientific Advisory Working Group in 2012.

I have appended copies of the GC/MS data (graphical plots only – no raw data) that I examined in 2001, and then when it was presented in 2012, and in 2013 (charts faxed from the IPOT files). Between them, there were comparisons made between the original analysis of a sample of clothing from (V) Richardson, reference analysis of a "control" sample of gasoline and a solvent blank (from the charcoal strip elution) conducted in 1991.

The ASTM E1618 method for GC/MS of volatile ignitable liquids in fire debris was first published in 1994 (ASTM E1618 – 94, Standard Guide for Ignitable Liquid

Residues in Extracts from Fire Debris Samples by Gas Chromatography – Mass Spectrometry). There was no ASTM peer-reviewed, published method prior to that date. That method was based on the methods of analysis and interpretation used by the majority of fire debris analysis across the U.S. Depending on the training and experience of individual analysts, the isolation and characterization of the compounds found in ignitable liquids using selected (or extracted) ion profiles, summed ion profiles and total ion profiles followed the same general method. It should be remembered that the main challenge of fire debris analysis has always been to detect volatile compounds and discriminate those that reliably indicate the presence of a “foreign” volatile product from the myriad complex mixtures of volatiles that arise from thermal degradation (pyrolysis) of the solid substrate that might be present. Gasoline is an artificial blend of many hydrocarbon compounds, fortunately in distinct, reproducible ratios that make it relatively easy to identify even among complex volatile pyrolysis products (especially using GC/MS). Prior to the introduction E1618 in 1994, most analysts knew to look for the characteristic patterns of peaks that only occur in automotive gasoline and not in the volatile “profiles” of partially burned substrates like clothing, carpet or upholstery. The volatiles common to gasoline can be found in pyrolysis products but in different ratios to one another and different amounts. It is critical for a forensic fire debris analyst to have a reference “library” of GC/MS data from a wide variety of burned (and unburned) substrates so that their volatiles can be distinguished from the mixtures found in gasoline and other ignitable liquids. It cannot be determined what data Mr. Castorena relied upon in distinguishing the volatile pattern from the clothing from Mr. Richardson from pyrolysis products. Comparison of his “gasoline standard” GC/MS data to the data from the clothing analysis demonstrates far too few clear correlations to allow a well-trained fire debris analyst to conclude gasoline was present in the clothing. While the ASTM peer-reviewed method in use today was introduced (published) in 1994 (and revised and improved periodically since then), it reflected the commonly accepted methods of GC/MS analysis that had been in use in forensic labs for some years prior. It represented a formalization or codification of technique rather than a revolutionary advancement.

I have appended a copy of ASTM E1618-94 for your reference. It is impossible to know from the data presented what criteria Mr. Castorena applied to reach his conclusion. However, it is clear that his determination was not based on a sufficient similarity between the data from the Richardson clothing and the reference data

from known gasoline even for the date of analysis (November 1991). The conclusion is certainly not supported by analyses carried out by current standards.

I have also appended a copy of the article from the Texas Observer (August 28, 1998) that discusses some of the failings of the Cacy forensic analysis and its documentation. The analysis by an independent lab A.I.D. of what purportedly was a second sample of the Richardson clothing revealed no gasoline.

I trust that these comments address your concerns about the TSFM – SAW technical review of the scientific findings in the Cacy case. Please feel free to contact me at any time for further questions you may have.

Sincerely,



Dr. John D. DeHaan, President  
Fire-Ex Forensics, Inc.

Fellow, American Board of Criminalistics (Fire Debris)  
Fellow, American Academy of Forensic Sciences  
Fellow, Forensic Science Society (U.K.)  
Fellow, Institution of Fire Engineers  
Member, California Association of Criminalists  
Member, National Fire Protection Association  
Member, American Society for Testing and Materials (E30)  
Certified Fire Investigator, International Association of Arson Investigators  
Certified Fire and Explosion Investigator, National Association of Fire Investigators  
Diploma in Fire Investigation, Forensic Science Society (U.K.)  
Diploma in Fire Investigation, Institution of Fire Engineers (U.K.)

CC: Chris Connealy, TSFM

***Consultant Services in the Investigation and Reconstruction of  
Fires and Explosions, Case Review, Quality Assurance, and Training***

# EXHIBIT D

ATT'Y GEN. OPINION GA-1048



ATTORNEY GENERAL OF TEXAS  
GREG ABBOTT

April 4, 2014

The Honorable Rod Ponton  
83rd District Attorney  
400 South Nelson Street  
Fort Stockton, Texas 79735

Opinion No. GA-1048

Re: Whether the Science Advisory  
Workgroup of the State Fire Marshal's Office  
has authority to review prior arson  
investigations (RQ-1154-GA)

Dear Mr. Ponton:

In two letters, you ask seven questions about the Science Advisory Workgroup ("Workgroup") of the State Fire Marshal's Office ("SFMO") and its investigation into closed arson cases and "forensic analysis [performed] before September 1, 2005."<sup>1</sup> Your first four questions implicate article 38.01 of the Code of Criminal Procedure as well as Attorney General Opinion GA-0866, which construed parts of article 38.01. *See* Request Letter at 5–6. Specifically, you ask about the Workgroup's authority "[i]n light of Opinion No. GA-0866" and whether the Workgroup is "subject to the jurisdictional restrictions delineated" in the opinion.<sup>2</sup> *Id.*

Article 38.01 authorizes the Texas Forensic Science Commission ("Commission") to investigate "any allegation of professional negligence or professional misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by a crime laboratory." TEX. CODE CRIM. PROC. ANN. art. 38.01, § (4)(a)(3) (West Supp. 2013). Opinion GA-0866 considered the effective date of the 2005 legislation creating the Commission and its

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<sup>1</sup>Letter from Honorable Rod Ponton, 83rd Dist. Att'y, to Honorable Greg Abbott, Tex. Att'y Gen. at 5–6 (Oct. 1, 2013) & Letter from Honorable Rod Ponton, 83rd Dist. Att'y, to Honorable Greg Abbott, Tex. Att'y Gen. at 4 (Oct. 10, 2013), <http://www.texasattorneygeneral.gov/opin> ("Request Letter" & "Supp. Letter," respectively).

<sup>2</sup>You indicate in your request letter that a letter from the SFMO, enumerating the findings of the Workgroup, has been submitted to the Texas Court of Criminal Appeals in connection with a pending habeas corpus action in the 83rd Judicial District of Pecos County. *See* Request Letter at 2. To the extent you ultimately seek a determination about the admissibility of the letter to a court or about the weight to be given the findings contained therein, that determination is not for an attorney general opinion but for the court in the pending action.



temporal limits on the Commission's authority. Tex. Att'y Gen. Op. No. GA-0866 (2011) at 1-3. The opinion also considered the jurisdictional limits on the Commission based on the language of the then-existing article 38.01, section (4)(a)(3).<sup>3</sup> *Id.* at 3 (considering the Commission's authority with respect to unaccredited facilities). Both article 38.01 and Opinion GA-0866 pertain to only the Commission and do not address the authority of the Workgroup or the SFMO.

In your initial request letter, you characterize the Workgroup as an entity created by the SFMO in coordination with the Innocence Project of Texas and the Commission. *See* Request Letter at 2. You state that "it is not clear to [your] office," but that "there are strong indications" that the Commission has delegated authority over arson investigations to the Workgroup. *Id.* at 3-4. Your first four questions are predicated on a presumption of that delegation and inquire whether this supposed delegation results in the Workgroup being limited to the same extent as the Commission. *Id.* at 5-6 (asking questions "[i]n light of Opinion No. GA-0866" and about the jurisdictional restrictions "delineated in Opinion No. GA-0866"). In briefing submitted to this office, however, the Commission states that it "has never delegated any authority" to the SFMO. Brief from Lynn M. Robitaille Garcia, Gen. Counsel, Tex. Forensic Sci. Comm'n at 3 (Oct. 11, 2013) (on file with the Op. Comm.). And the Texas Department of Insurance, on behalf of the SFMO, explains in its briefing that the SFMO created the Workgroup under the statutory authority governing the SFMO.<sup>4</sup> *See* Brief from Sara Waitt, Gen. Counsel, Tex. Dep't of Ins. at 1 (Oct. 28, 2013) (citing to SFMO's authority in chapter 417 of the Government Code) (on file with the Op. Comm.). The SFMO also explains that its decision to review closed arson cases does not stem from a delegation of authority involving the Commission. *See id.* at 2. Thus, in answer to your first four questions, article 38.01 is relevant to only the authority of the Commission and does not address or limit any independent authority vested in the Workgroup or the SFMO. Because Opinion GA-0866 construes only article 38.01, it is likewise irrelevant to any authority of the Workgroup or the SFMO.

In your fifth question, you ask whether the SFMO has "any independent statutory, or other authority, to investigate and make findings on old, closed arson cases, particularly arsons whose forensic analysis took place before September 1, 2005?" Request Letter at 6. The SFMO is governed by chapter 417 of the Government Code. TEX. GOV'T CODE ANN. §§ 417.001-.010 (West 2012). Chapter 417 directs the fire marshal to "administer and enforce applicable provisions of the Insurance Code and other law relating to the state fire marshal." *Id.* § 417.004(a). In addition, the fire marshal "is the chief investigator in charge of the investigation

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<sup>3</sup>Article 38.01, section (4)(a)(3) was amended in 2013 and now expands the investigative authority of the Commission to include unaccredited crime laboratories. *See* Act of May 20, 2013, 83d Leg., R.S., ch. 782, 2013 Tex. Gen. Laws 1994, 1996 (codified at TEX. CODE CRIM. PROC. ANN. art. 38.01, §§ (4)(a)(3), (b-1)).

<sup>4</sup>Chapter 417 places the SFMO under the control of the Texas Department of Insurance. *See* TEX. GOV'T CODE ANN. § 417.002 (West 2012) (providing that the state fire marshal is appointed by, and serves at the pleasure of, the commissioner of insurance).

of arson and suspected arson in the state.” *Id.* § 417.004(b). With respect to the duties to investigate arson and suspected arson, the fire marshal “shall immediately investigate a fire occurring in this state in which property is destroyed” if directed by the commissioner of insurance or if requested by others identified by chapter 417. *Id.* § 417.007(a). The fire marshal “shall ascertain, if possible, whether the fire was caused intentionally, carelessly, or accidentally” and shall make a written report to the commissioner. *Id.* § 417.007(c); *see also id.* § 417.007(d) (providing tools for further investigation). In addition, with sufficient evidence to charge a person with certain crimes, the “state fire marshal shall give to the appropriate prosecuting attorney all evidence and relevant information.” *Id.* § 417.007(e).

The language of chapter 417 is silent with respect to authorization over old, closed arson cases. *See id.* §§ 417.001–.010 (West 2012). Chapter 417 grants the SFMO express authority over the research and improvement of fire protection and the investigation of arson and suspected arson. *Id.* § 417.004(b)–(d). “[T]he legislature impliedly intends that an agency should have whatever power is reasonably necessary to fulfill a function or perform a duty . . . expressly placed in the agency” by the Legislature. *Pub. Util. Comm’n of Tex. v. GTE-Sw., Inc.*, 901 S.W.2d 401, 407 (Tex. 1995). The investigation and review of fires, whenever occurring, could yield information necessary for the SFMO to fulfill its duties to research and improve fire protection and to investigate arson. Thus, we cannot conclude that the SFMO is devoid of authority to investigate an arson case merely because the case is old or closed. Moreover, because the SFMO’s authority in chapter 417 is independent of that of the Commission in article 38.01, there is no basis by which to apply to the SFMO the September 1, 2005 limitation that applies to the Commission. Accordingly, neither chapter 417 nor Opinion GA-0866 prohibits the SFMO from investigating and making findings on closed arson cases.

Your six and seventh questions inquire about two provisions in article 38.01 relevant to evidentiary matters. *See Supp. Letter at 4.* These provisions are contained in article 38.01 and apply to only the Commission. Thus, neither of these provisions limits any actions of the SFMO or the Workgroup.<sup>5</sup>

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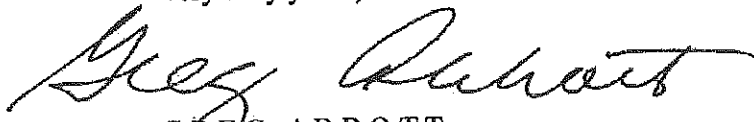
<sup>5</sup>Questions regarding the admissibility of evidence in a civil or criminal action are for the particular court to determine, and are not appropriate for an attorney general opinion. *See Tex. Att’y Gen. LO-92-39 (1992) at 1.*

S U M M A R Y

Neither article 38.01 of the Code of Criminal Procedure nor Attorney General Opinion GA-0866 limit any investigative authority that may be vested in the Science Advisory Workgroup or the State Fire Marshal's Office.

Neither chapter 417 of the Government Code nor Opinion GA-0866 prohibits the State Fire Marshal's Office from investigating and making findings on closed arson cases.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Greg Abbott", written in dark ink.

GREG ABBOTT  
Attorney General of Texas

DANIEL T. HODGE  
First Assistant Attorney General

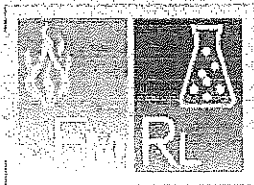
JAMES D. BLACKLOCK  
Deputy Attorney General for Legal Counsel

VIRGINIA K. HOELSCHER  
Chair, Opinion Committee

Charlotte M. Harper  
Assistant Attorney General, Opinion Committee

# EXHIBIT E

LETTER FROM DR. ELIZABETH BUC



Fire and Materials Research Laboratory, LLC

33025 Industrial Road / Livonia, MI 48150-1619 / (586) 596.6736 / [www.fmrllc.com](http://www.fmrllc.com)

January 23, 2014

Mr. Donald McCarthy, Esq.  
Assistant District Attorney  
83<sup>rd</sup> District Attorney  
123 North 6<sup>th</sup> Street  
Alpine, TX 79830

RE: REVIEW OF LABORATORY CHARTS AND TESTIMONY FROM BEXAR COUNTY  
MEDICAL EXAMINER FROM STATE V SONIA CACY NO. 2037

Dear Mr. McCarthy:

Your office retained me to review and interpret various chromatographs generated by the Bexar County Forensic Science Center in regards to the State versus Sonia Cacy matter. I have studied and compared the chromatographs provided and read the testimony transcripts of Mr. Joe Castorena and applicable ASTM standards. The chromatographs, all dated November 18, 1991, reviewed included: sample ME 1578-91 pants/underwear time-stamped 1:08pm; solvent; ME1578-91 pants/underwear time-stamped 2:22pm, and two (2) gasoline standards-- one run in SCAN mode at 2:57pm and the second in SIM mode at 3:24 pm. The pants/underwear and gasoline standard chromatographs and ion profiles were compared using a light table. It is my opinion, based on this review, on my education in chemistry and materials science and engineering and on my experience in fire investigation and fire science, that the chromatographs are negative for gasoline.

Interpretation of chromatographs is best done utilizing the results from samples run under the same conditions using the same calibrated instrument. The main chromatographs and extracted ion profiles are interpreted based on comparison of peak patterns, retention times and relative intensities. Reference or standard samples provide peak patterns for pure materials as well as substances including mixtures like gasoline. Chromatographs vary in relative complexity based on factors including mixtures and combustion. Additional interpretation is required when peaks in a standard used for comparison are missing for example, from weathering. Any variation in peak pattern, characterized by retention time and relative peak intensity, between a standard and sample requires careful consideration to determine if the difference is attributable to environmental conditions, contamination (including the substrate) and/ or chemical composition. ASTM E 1618 Standard Test Method for Ignitable Liquid Residues in Extracts from Fire Debris Samples by Gas Chromatography-Mass Spectroscopy provides a methodology for gasoline identification by abundant aromatic functional group patterns.

The reported fabric-based substrate e.g., pants, underwear would be expected to absorb and retain and be favorable matrix for analysis of ignitable liquid residues, if present. When visually compared, the



pant/underwear and gasoline standard chromatographs are different and show more than one difference in retention time, relative peak intensity and complexity than expected for a positive identification of gasoline. The retention time scales of the printed chromatographs vary and make peak to peak correlations somewhat challenging; however, one difference is the third peak in the ME 1578-91 pants/underwear (pg. 2, top profile) methyl/dimethylbenzene profile peak set between 2.4 and 2.8 minutes has a lower than anticipated peak intensity compared to the other two peaks as shown in the gasoline standard (pg. 19, top profile). The relative intensity of predominant peaks between 4.4 and 6 minutes in the gasoline standard (pg. 20, top profile) indane/methylindanes differ from the ME 1578-91 sample (pg. 2A, top profile). The retention time of the predominant peak in the SCAN gasoline chromatograph is lower than the SIM gasoline chromatograph—see the peak around 4 minutes (p. 14 and p. 18).

Based on my review of the chromatographs for the ME-1578-91 sample and gasoline standards, expected typical and standard gasoline peak patterns were not present in the garment chromatographs in sufficient correlation to call the pant/underwear samples positive for ignitable liquid residues or gasoline.

Feel free to contact me if you have any questions or require additional information or analyses.

Yours truly,

Elizabeth C. Buc, PhD, PE, CFI