U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

June 5, 1998

CERTIFIED MAIL
Ms. Shari L. Wall, Paralegal
Fogel, Keating, Wagner, Polidori
Shafner, Struthers and Heron
119 Bannock Street
Denver, CO 80204

Re: FOIA Request S-712020: Information concerning Lennox Pulse Furnaces

Dear Ms. Wall:

This responds to your Freedom of Information Act (FOIA request seeking information from the Consumer Product Safety Commission. The records from the Commission files responsive to your request have been processed and copies of the releasable records are enclosed. The enclosed records represent a final response to your request (a partial response was provided under cover letter dated May 4, 1998).

The enclosed records include file information generated by the Commission itself or its contractors for regulatory or enforcement purposes. These records are in file ID85-19 and are identified as Inspection Reports, Laboratory Summaries, Hazard Assessment memoranda and other correspondence, notes and documents. The Commission has established management systems under which supervisors are responsible for reviewing the work of their employees or contractors. The file information materials are final and have been prepared and accepted by the Commission's staff under such review systems. The Commission believes that it has taken reasonable steps to assure the accuracy of the information.

Also enclosed are six (6) Epidemiologic (In-Depth) Investigation Reports with the underlying and supporting documentation. The Commission has received this information from its formal investigation systems. Through these systems the Commission hopes to learn when specific products are associated with illness, injury or death. The Commission believes that it has taken reasonable steps to assure the accuracy of this information. While conducting the interviews for the investigation reports, Commission staff or contractors have spoken with the individuals involved or with others who witnessed or are familiar with the incidents. Where possible, Commission staff have examined the products reportedly involved in the incidents.

Although the Commission has investigated the incidents described in the investigation reports, the Commission has not necessarily determined the cause of the incidents.

You will note that information which could identify injured parties and persons treating them has been deleted from some of the records because section 25© of the Consumer Product Safety Act, 15 U.S.C. § 2074(c)(1), prohibits such disclosures without the consent of those individuals.

We must withhold one (1) product complaint and reported incident that the Commission has obtained from a consumer, an attorney for a consumer or other. The Commission has not received confirmation of the accuracy of the information in the complaint and reported incident. Pursuant to Exemption 3 of the FOIA, 5 U.S.C. § 552(b)(3) and section 6(b)(1) of the Consumer Product Safety Act (CPSA), 15 U.S.C. § 2055(b)(1), and our regulations, 16 C.F.R. § 1101.32, we must withhold the unconfirmed product complaint and reported incident.

FOIA Exemption 3 provides for the withholding from disclosure of matters that are specifically exempted from disclosure by another statute. In applying FOIA Exemption 3, we are relying on section 6(b)(1) of the CPSA. That section prohibits the Commission from disclosing information about a consumer product that identifies a manufacturer or private labeler unless the Commission has taken "reasonable steps" to assure that the information is accurate, that disclosure is fair in the circumstances, and that disclosure will be reasonably related to effectuating the purposes of the laws that the Commission administers. See Commission regulation, 16 C.F.R. § 1101.32.

The Commission's policy is to withhold each consumer complaint and reported incident unless: (1) the Commission has conducted an investigation of the complaint and reported incident, and the investigation corroborates the substance of the complaint and reported incident; (2) the Commission has conducted or obtained a technical, scientific, or other evaluation of the product that is the subject of the complaint and reported incident, and evaluation corroborates the substance of the information contained in the complaint and reported incident; or (3) the consumer or person reporting or submitting the incident confirms the accuracy of the information. The Commission did not take any of these steps with regard to these certain consumer complaints and reported incidents responsive to your request. While it has been Commission practice since June 1983 to seek confirmation of incoming consumer complaints and incidents, the Commission does not have the resources to seek confirmation of the complaints and incidents where a consumer has not responded to our request for confirmation of the information.

We must also withhold portions of the law enforcement investigatory files pursuant to Exemptions 5 and 7 (E) of the FOIA, 5 U.S.C. § § 552 (b) (5) and (b) (7) (E). Exemption 5 provides for the withholding from disclosure of inter-agency and intra-

agency memoranda which would not be available by law to a party in litigation with the agency. FOIA Exemption 7 (E) provides for the withholding from disclosure records or information compiled for law enforcement purposes, to the extent that the production of such law enforcement records or information would disclose techniques and procedures for law enforcement investigations or prosecutions, or would disclose guidelines for law enforcement investigations or prosecutions if such disclosure could reasonably be expected to risk circumvention of the law.

The records being withheld consist of internal notes and memoranda containing recommendations, opinion, suggestions and analyses of the Commission's technical and legal staffs. The records constitute both predecisional and deliberative discussion that clearly falls within the attorney-client and attorney-work product privileges. Any factual materials in the records not covered by some other exemption are inextricably intertwined with exempt materials or the disclosure of the factual materials would itself expose the deliberative process. We have determined that the disclosure of these certain law enforcement investigatory records responsive to your request would be contrary to the public interest. It would not be in the public interest to disclose these material because disclosure would: (1) impair the frank exchange of views necessary with respect to such matters, and (2) reveal the techniques, guidelines and strategies utilized by the investigative and legal staff in developing the information regarding this investigation and other on-going investigations, which if disclosed would significantly risk circumvention of the statutes and regulations of the Commission administers.

According to the Commission's regulations implementing the FOIA at 16 C.F.R. § 1015.7, a partial denial of access to records may be appealed to the General Counsel of the Commission within thirty (30) days of your receipt of this letter. An appeal must be in writing and addressed to: FOIA APPEAL, General Counsel, ATTN: Office of the Secretary, U.S. Consumer Product Safety Commission, Washington, D. C. 20207.

Processing this request, conducting the file searches and preparing the information cost the Commission $100.00. In this instance we have decided to waive all of the charges. Thank you for your interest in consumer product safety. Should you have any question, please contact Alberta Mills, Paralegal Specialist, by letter, facsimile (301) 504-0127 or by telephone (301) 504-0785, ext. 1299.

Sincerely,

Todd A. Stevenson
Deputy Secretary and
Freedom of Information Officer
Office of the Secretary

enclosures

AEC 366

CONSUMER PRODUCT INCIDENT REPORT

MAR - 2 1995

1. NAME OF RESPONDENT	2. PHONE NO. (HOME) (WORK)
Ray Tessmer	615-698-6879 none
3. STREET ADDRESS	4. CITY STATE ZIP CODE
4432 James Lane	Chattanooga TN 37416

5. DESCRIBE INCIDENT OR HAZARD, INCLUDING DATA ON INJURIES
Consumer smelled gas throughout home so he called and explained problem to dealer's rep. (name unknown) who sent repairman (name unknown) to inspect furnace. Repairman found heat exchanger cracked and replaced it with a new identical heat exchanger. 2/95 Consumer smelled gas so he called dealer's repairman (name unknown) who inspected furnace, found heat exchanger cracked and replaced it with a new identical heat exchanger. (Date unknown)
-cont-

6. DATE OF INCIDENTS	7. IF INJURY OR NEAR MISS OBTAIN AGE/SEX 0 Y/N AND DESCRIBE INJURY:	8. IF VICTIM DIFFERENT FROM RESPONDENT, PROVIDE NAME RELATIONSHIP
3/93	none	none none

9. DESCRIPTION OF PRODUCT	10. BRAND NAME
natural gas furnace	Lennox

11. MFR/DISTRIBUTOR NAME, ADDR. & PHONE	12. MODEL, SERIAL NUMBERS
Lennox Inc. unknown unknown unknown unknown unknown unknown	MFR/PRVLER NOTIFIED 7/26/96 No Comments made Comments attached Excisions/Revisions Firm has not requested further notice	G1404-5-100-6; S# 5886H05685 13. DEALER'S NAME, ADDRESS & PHONE Carter Heating and A/C 6200 Highway 58 Harrison, TN 37341 615-344-9031

14. WAS THE PRODUCT DAMAGED, REPAIRED OR MODIFIED? YES x NO IF YES, BEFORE OR AFTER THE INCIDENT? after DESCRIBE: damaged and repaired twice: see narrative	15. PRODUCT PURCHASED NEW x USED DATE PURCHASED 12/87 AGE 5yr. 3mo. 16. DOES PRODUCT HAVE WARNING LABELS? IF SO, NOTE: unknown

17. HAVE YOU CONTACTED THE MANUFACTURER? YES NO x IF NOT, DO YOU PLAN TO CONTACT THEM? YES x NO OTHER?	18. IS THE PRODUCT STILL AVAILABLE? YES x NO IF NOT, ITS DISPOSITION	19. MAY WE USE YOUR NAME WITH THIS REPORT? YES x NO

FOR ADMINISTRATION USE

20. DATE RECEIVED	21. RECEIVED BY (NAME & OFFICE)	22. DOCUMENT NO.
02/27/95	aec/HL	H9520321A
23. FOLLOW-UP ACTION		24. PRODUCT CODE(S) 0310
25. DISTRIBUTION	26. ENDORSER'S NAME & TITLE	

CPSC FORM 175 (9/89)

CONSUMER PRODUCT INCIDENT REPORT H9520321A

Narrative Continued

Consumer plans to call and explain problem to manufacturer.

Distributor phone #: unknown

CPSC Source: L/S GOVT

MAR 2 9 1995

If you have any changes, additions, or comments you wish to make concerning your attached report, please make them in the space below.

5. The unit was originally installed in September, 1986. The heat exchangerfailed at a welded joint in March, 1993, and a replacement assembly was installed. The second heat exchanger failed at a welded joint in February, 1995 when less than two years old. It was again replaced. The technician on the initial inspection was somewhat overcome by gas fumes, and had to lay down for a while.

6. Add 2/95.

11. Lennox Industries Inc.
P.O. Box 27157
Atlanta, GA 30317

404-377-5511

15. Sep, 1986.

16. For starting up furnace.

I confirm that the information in the attached report (including any changes, additions, or comments I have made) is accurate to the best of my knowledge and belief.

J A Jessmen
Signature

5/3/95
Date

☐ I request that you do not release my name.

☐ You may release my name to the manufacturer but I request that you not release it to the general public.

☑ You may release my name to the manufacturer and to the public.

I-22

H5203210310

C · TC 21

CONSUMER PRODUCT INCIDENT REPORT

MAR 15 1995

2-535

13

1. NAME OF RESPONDENT	2. PHONE NO. (HOME) (WORK)
[redacted]	none
3. STREET ADDRESS	4. CITY / STATE ZIP CODE
[redacted]	Brownsville IN 47325

5. DESCRIBE INCIDENT OR HAZARD, INCLUDING DATA ON INJURIES
Consumer smelled a gas odor emitting from LP gas furnace. Consumer had a serviceman (name unknown) from Murphy's Gas (LP gas supplier) inspect furnace. Serviceman found LP gas leaking from a split (1/3 of connector's circumference) in stainless steel flex hose gas connector for furnace. Serviceman shut off furnace and LP gas to furnace.

-cont-

6. DATE OF INCIDENTS	7. IF INJURY OR NEAR MISS OBTAIN AGE/SEX 0 Y/N AND DESCRIBE INJURY:	8. IF VICTIM DIFFERENT FROM RESPONDENT, PROVIDE NAME / RELATIONSHIP
3/5/95	none	none / none

9. DESCRIPTION OF PRODUCT	10. BRAND NAME
LP gas furnace	Lennox Pulse

11. MFR/DISTRIBUTOR NAME, ADDR. & PHONE	12. MODEL, SERIAL NUMBERS
Lennox P.O. Box 1319 Columbus, OH 43216 614-421-6000 unknown unknown unknown	series #G14
	13. DEALER'S NAME, ADDRESS & PHONE Hurst Heating & A/C (out of business) unknown New Paris, OH 00000 unknown

14. WAS THE PRODUCT DAMAGED, REPAIRED OR MODIFIED? YES NO x IF YES, BEFORE OR AFTER THE INCIDENT? DESCRIBE:	15. PRODUCT PURCHASED NEW x USED DATE PURCHASED '89 AGE 6 yrs. 16. DOES PRODUCT HAVE WARNING LABELS? IF SO, NOTE: unknown

17. HAVE YOU CONTACTED THE MANUFACTURER? YES NO x IF NOT, DO YOU PLAN TO CONTACT THEM? YES NO x OTHER?	18. IS THE PRODUCT STILL AVAILABLE? YES x NO IF NOT, ITS DISPOSITION	19. MAY WE USE YOUR NAME WITH THIS REPORT? YES x (NO)

FOR ADMINISTRATION USE

20. DATE RECEIVED	21. RECEIVED BY (NAME & OFFICE)	22. DOCUMENT NO.
3/10/95	ldm/HL	H9530147A
23. FOLLOW-UP ACTION		24. PRODUCT CODE(S)
6/8/96 MFR/PRVLBR NOTIFIED No Comments made Comments attached Excisions/Revisions Firm has not requested further notice		0310,0374
25. DISTRIBUTION	26. ENDORSER'S NAME & TITLE	
	3/13/95	

PSC FORM 175 (9/89)

CONSUMER PRODUCT INCIDENT REPORT H9530147A

ative Continued

Consumer called and explained incident to local distributor of
ifacturer's furnaces, Meyers Manufacturing, 2200 Hawkins Rd., Richmond,
name & TEL# unknown), who said furnace manufacturer recommended use of
iector with consumer's furnace. Meyers manufacturing said consumer's
id furnace vibrates and needs a connector that gives.

umer feels connector might not be appropriate for her furnace after
ling warnings on connector: "Connectors aren't designed for movement
r installation. Bending, flexing or vibration must be avoided. Not for
with castered equipment...." Consumer plans to have connector replaced
a heavy-duty commercial connector, date unknown.

er installed furnace.

ributor phone #: unknown

Source: BOOK

CONSUMER PRODUCT INCIDENT REPORT - H9530147A
PRODUCT #2

DESCRIPTION OF PRODUCT .inless steel flex hose gas connector	10. BRAND NAME Dormont
MFR/DISTRIBUTOR NAME, ADDR. & PHONE 'mont :nown .tsburgh, PA 15201 :nown :nown :nown :nown	12. MODEL, SERIAL NUMBERS unknown 13. DEALER'S NAME, ADDRESS & PHONE Hurst Heating & A/C (out of business) unknown New Paris, OH 00000 unknown
WAS THE PRODUCT DAMAGED, REPAIRED OR)IFIED? YES x NO IF YES, BEFORE AFTER THE INCIDENT? after DESCRIBE: 1aged: see narrative	15. PRODUCT PURCHASED NEW x USED DATE PURCHASED '89 AGE 6 yrs. 16. DOES PRODUCT HAVE WARNING LABELS? IF SO, NOTE: see narrative

HAVE YOU CONTACTED THE IUFACTURER? YES NO x NOT, DO YOU PLAN TO CONTACT :M? YES NO x OTHER?	18. IS THE PRODUCT STILL AVAILABLE? YES x NO IF NOT, ITS DISPOSITION	--

;tributor phone #: unknown

Photos

EPDS 8 NOV 1994

EPIDEMIOLOGIC INVESTIGATION REPORT

1. CASE NO. G480057
941005HCC2240

2. INVESTIGATOR'S ID: 8567

3. OFFICE CODE: 830

4. DATE OF ACCIDENT: YR 94 MO 01 DAY --

5. DATE INVESTIGATION INITIATED: YR 94 MO 10 DAY 13

6. SYNOPSIS OF ACCIDENT OR COMPLAINT: A consumer complained that his Lennox Pulse high efficiency furnace could be unsafe. The furnace exhaust is a PVC pipe that exits the side of his basement just above ground level. Last winter ice formed in the exhaust pipe. He cleaned it out and neither he nor his wife ever experienced any health problems concerning the incident.

7. LOCATION (Home, school, etc.): home — 10

8. CITY: Parma

9. STATE: OH

10A. FIRST PRODUCT: furnace — 0310

10B. SECOND PRODUCT: none — 0000

11A. TRADE/BRAND NAME, MODEL NUMBER, MANUFACTURER & ADDRESS: Lennox Pulse G1 403 60 20
Lennox Industries, Inc. Dallas, TX 75379

11B. TRADE/BRAND NAME, MODEL NUMBER, MANUFACTURER & ADDRESS:

12. AGE OF VICTIM: 999

13. SEX (Use numerical code): MALE - 1, FEMALE - 2, UNKNOWN - 3 — 9

14. DISPOSITION: no injury — 0

15. INJURY DIAGNOSIS: no injury — 71

16. BODY PART: no injury — 99

17. RESPONDENT(S) (Master, Friend): Complainant — 1

18. TYPE INVESTIGATION: ON SITE 1, TELEPHONE 2, OTHER 3 — 1

19. TIME SPENT: 90 T 1

20. ATTACHMENTS: photos. — 1

21. CASE SOURCE: complaint — 07

22. REVIEWED BY: 8311 — YR 94 MO 11 DAY 04

23. PERMISSION TO DISCLOSE NAMES (NON-NEISS CASES ONLY)
CPSC MAY DISCLOSE MY NAME [ ]
CPSC MAY NOT DISCLOSE MY NAME [X]

24. NARRATIVE (See Instructions on Other Side)

25. REGIONAL OFFICE DIRECTOR REVIEW — DATE

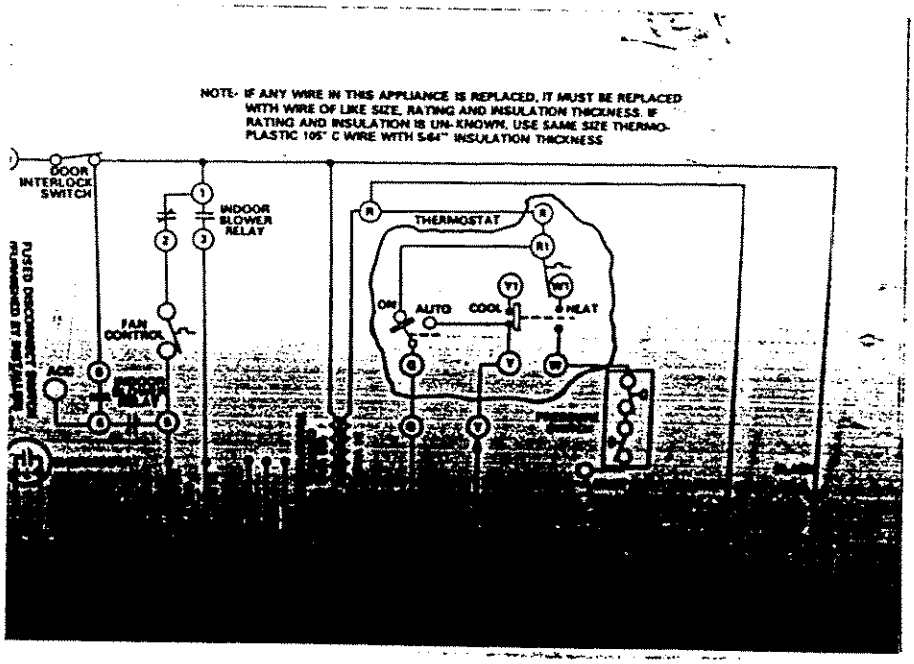
MFR/PRVLBR NOTIFIED Jun 6 1998
- ✓ No Comments made
- Comments attached
- Excisions/Revisions
- Firm has not requested further notice

MFR/PRVLBR NOTIFIED Jun 5 1998
- Overrule No comments made
- Comments attached
- 25c Excisions/~~Revisions~~
- Revision Firm has ~~not~~ requested further notice

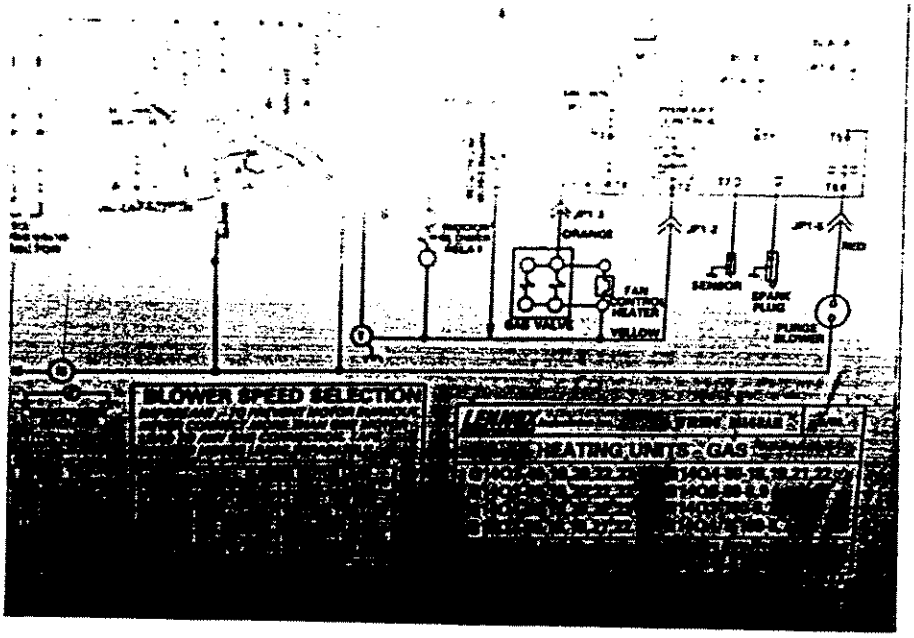
SC FORM NO. 102 (Revised 10/85) USE OTHER SIDE AND ADDITIONAL SHEETS IF NECESSARY)

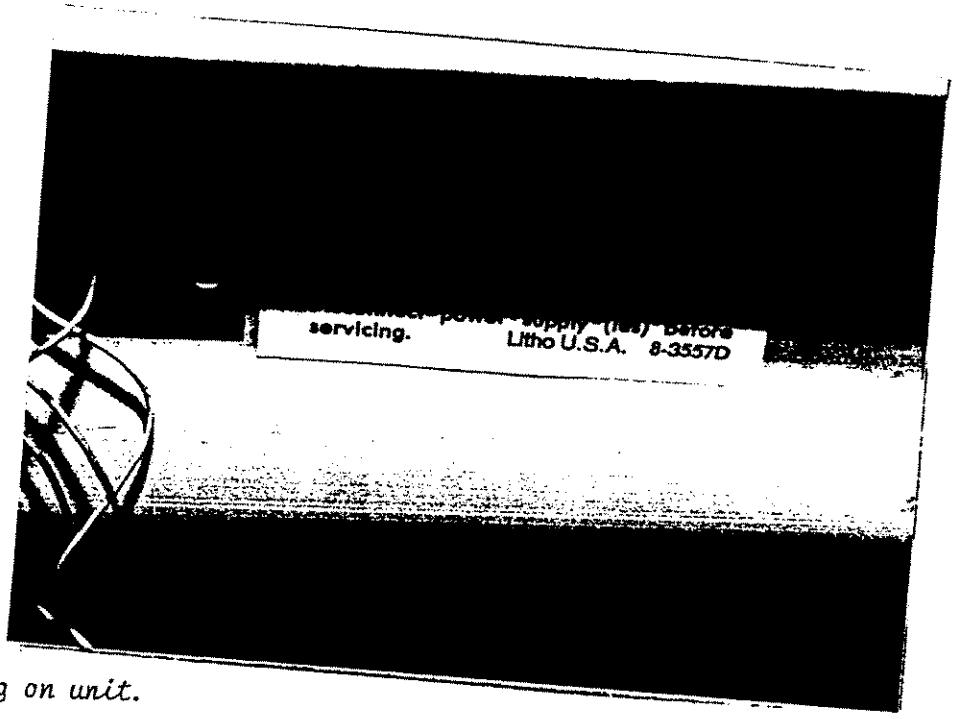
APPROVED FOR USE THROUGH 5/31/94 OMB NO. 3041-0020

941005HCC2240



15 and 16





17. Warning on unit.

MAY [illegible]

If you have any changes, additions, or comments you wish to make concerning your attached report, please make them in the space below.

The furnace is not the product in question. . . . the gas connector hose is. It is made by the Dormont Manufacturing Co., 6615 Enterprise Drive, Export, PA., 15632. Phone (412) 733-4800 or 1-800-DORMONT (367-6668)

The furnace Mfr. (Lennox) regularly installs this connector with their furnaces because the connector "gives" or absorbs vibration, which is natural for this "pulse type" furnace. However, the warning label on the connector hose states plainly that this connector is not designed for a vibration type situation. Who is right? We were really confused as to what connector to replace the ruptured one with. We installed an industrial strength connector from the same Dormont Co. It seemed much heavier and not as easily flexed.

My father-in-law had the furnace installed 6 yrs ago. He was 84 yrs old at the time. I'm the one questioning the product since I was the one who discovered the leak. It was a

I confirm that the information in the attached report (including any changes, additions, or comments I have made) is accurate to the best of my knowledge and belief.

small miracle that the entire house didn't blow up. According to the Murphy's Gas man, the leak was so severe and the gas had been pulled up thru the entire house by the air ducts connected to the furnace.

[redacted] 5-8-95

Signature Date

The Dormont Co. has asked to see the piece that ruptured. They asked the employee of Myers Mfr. to ask us. We still have the piece.

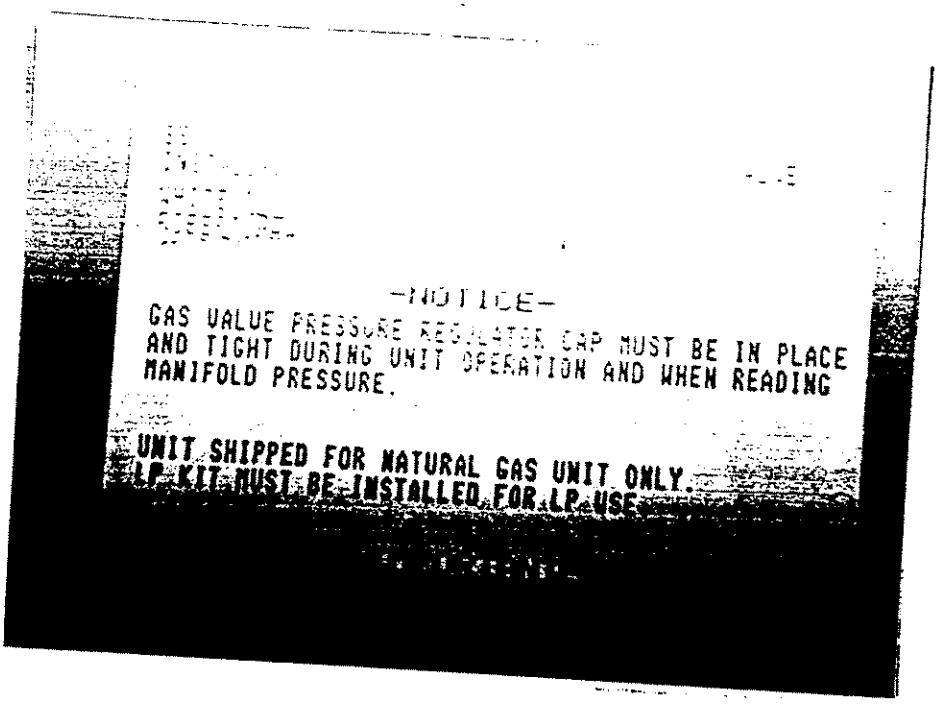
☑ I request that you do not release my name.

☐ You may release my name to the manufacturer but I request that you not release it to the general public.

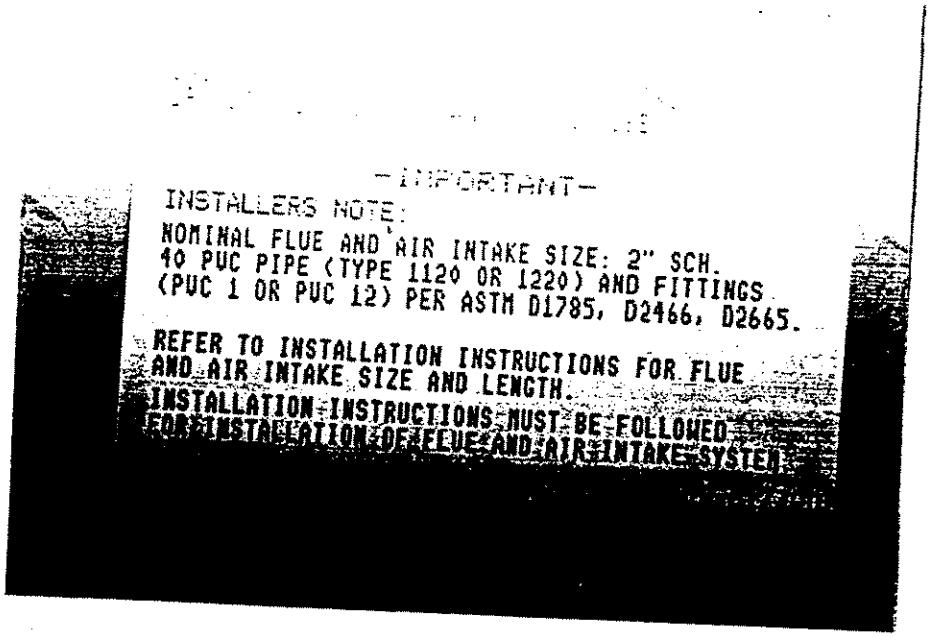
☐ You may release my name to the manufacturer and to the public.

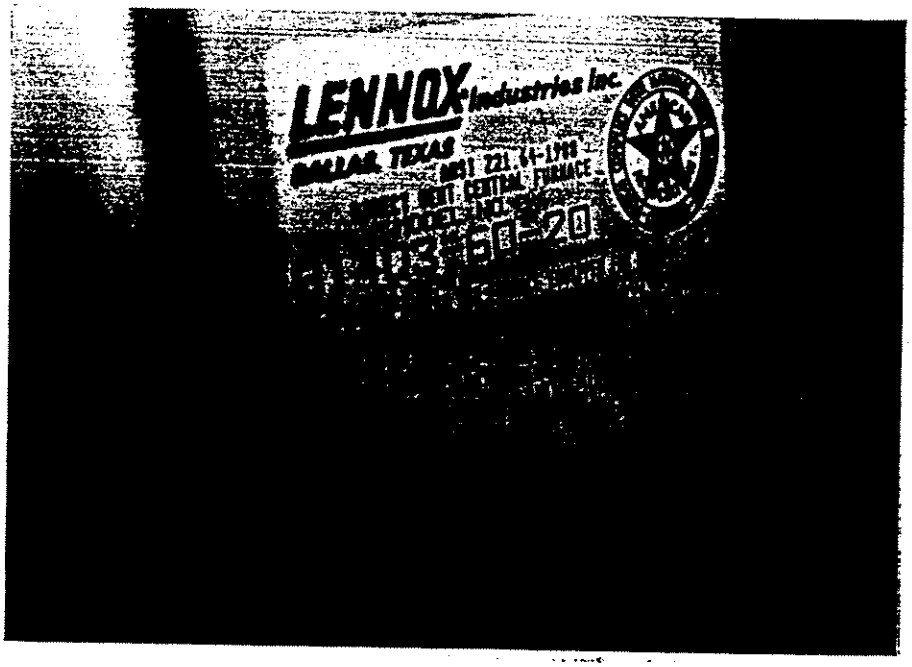
I-24

IA 530147

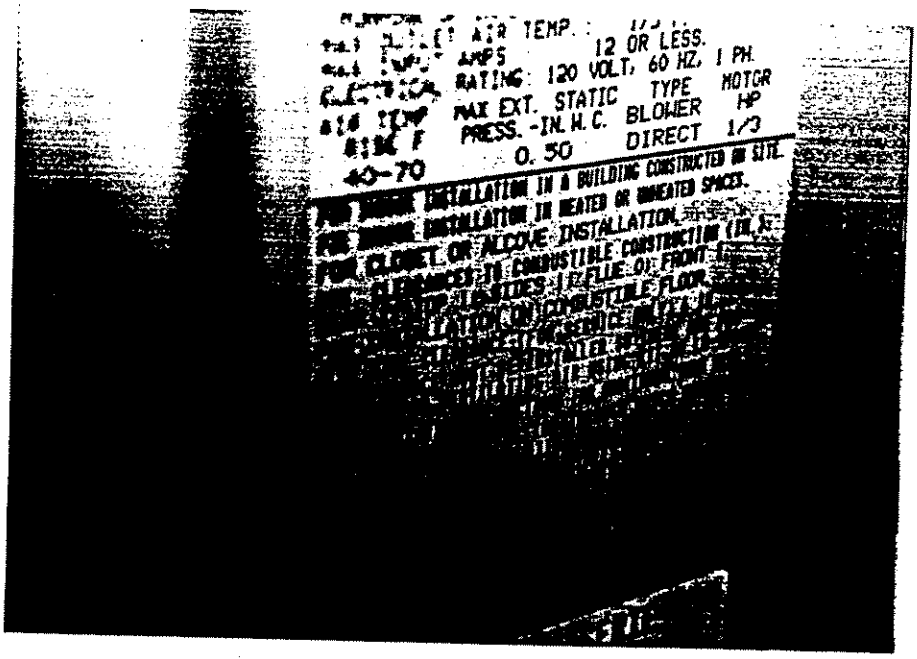


18 & 19 *Instructions to installer*





20 & 21 AGA Certification on furnace.



941005HCC2240

22. *Serial number on unit.*

23.

U. S. CONSUMER PRODUCT SAFETY COMMISSION

AUTHORIZATION FOR RELEASE OF NAME

Thank you for assisting us in collecting information on a potential product safety problem. The Consumer Product Safety Commission depends on concerned people to share product safety information with us. We maintain a record of this information, and use it to assist us in identifying and resolving product safety problems.

We routinely forward this information to manufacturers and private labelers to inform them of the involvement of their product in an accident situation. We also give the information to others requesting information about specific products. Manufacturers need the individual's name so that they can obtain additional information on the product or accident situation.

Would you please indicate on the bottom of this page whether you will allow us to disclose your name. If you request that your name remain confidential, we will of course, honor that request. After you have indicated your preference, please sign your name and date the document on the lines provided.

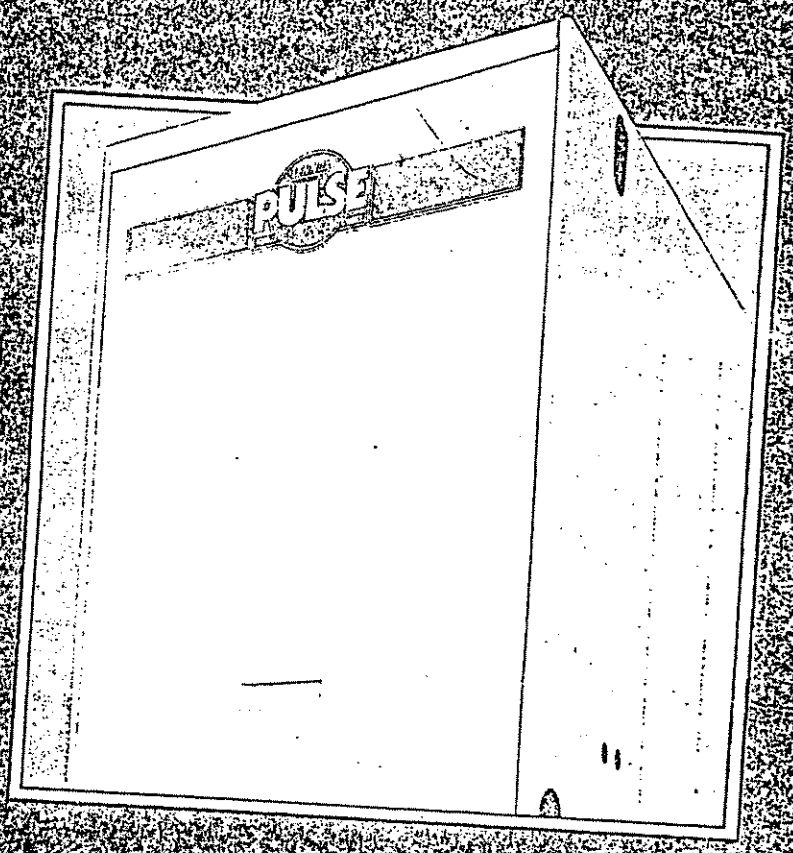
☐ You are hereby authorized to disclose my name and address with the information collected on this case.

☑ My identity is to remain confidential.

[redacted] 10-18-94

(Signature) (Date)

GAS FURNACES



PULSE

Our Most Efficient Gas Heating System

LENNOX

= 0470

INCIDENT INVESTIGATION REQUEST FORM

Document Number G480051A0 Category I.D. STNN01

Date of Incident 12/93-3/94

Follow-up Requested Commission Briefing [V]

Follow-up Requested Telephone Call [] On-Site [x]

Headquarters Contact: Wm. Rowe 301-504-0470 (Ext. 1271)

Assignment Message : Photograph the installation, copy the installation instructions, and determine which model building code was in effect. Try to determine what changed between the winter of 1992 and the winter of 1993. It seems the problem did not start untill 1993. Note if he had problems with furnace operation or symptoms of CO poisoning.

Person(s) to Contact:

Guideline:

98 Gas Furnaces
Requested by: Wm. Rowe

Task Number 941005HCC2240

Assigned to CHIO

Date 941005.

(15) TC-E1 EPOS

CONSUMER PRODUCT INCIDENT REPORT

AUG 18 1994

1. NAME OF RESPONDENT [redacted]

2. TELEPHONE NO. (Home) [redacted] (Work)

3. STREET ADDRESS [redacted]

4. CITY [redacted] STATE [redacted] ZIP CODE 44129

5. DESCRIBE ACCIDENT SITUATION OR HAZARD, INCLUDING DATA ON INJURIES. (Use second page if necessary.)

Complainant had a Lennox Plus furnace installed in 4/91. Flue exits thru side wall at ground level. Last winter flue became clogged with ice. Complainant had to chip away at it with an ax. He called Lennox&was told that the condition was normal. He said no mention was made of this when he purchased the furnace and he is too old to be outside chipping away at ice. He feels it is dangerous as ice and snow could completely block the flue.

6. DATE OF INCIDENT(S): winter 93/94

7. IF INJURY OR NEAR MISS, OBTAIN: AGE _____ SEX _____ AND DESCRIBE INJURY _____

8. IF VICTIM DIFFERENT FROM RESPONDENT, PROVIDE: NAME _____ RELATIONSHIP _____

9. DESCRIPTION OF PRODUCT: Lennox Plus Furnace

10. BRAND NAME: Lennox

11. MANUFACTURER/DISTRIBUTOR NAME, ADDRESS & PHONE: Lennox Industries, Inc. Dallas TX 75379

12. MODEL, SERIAL NO.'S: model G14Q3-60

13. DEALER'S NAME, ADDRESS & PHONE: Bob Goff Heating & Air Conditioning 4298 Pearl Rd. Cleveland, OH .

14. WAS THE PRODUCT DAMAGED, REPAIRED OR MODIFIED? YES _____ NO X IF YES, BEFORE OR AFTER THE INCIDENT? _____ Describe _____

15. PRODUCT PURCHASED NEW X USED _____ DATE PURCHASED 4/10/91 AGE _____

16. DOES PRODUCT HAVE WARNING LABELS? IF SO, NOTE: _____

17. HAVE YOU CONTACTED THE MANUFACTURER? YES X NO _____ IF NOT, DO YOU PLAN TO CONTACT THEM? YES _____ NO _____ OTHER _____

18. IS THE PRODUCT STILL AVAILABLE? YES X NO _____ IF NOT, ITS DISPOSITION _____

19. MAY WE USE YOUR NAME WITH THIS REPORT? YES _____ NO X

FOR ADMINISTRATION USE

20. DATE RECEIVED: 8/5/94

21. RECEIVED BY (Name & Office): CLE RP MLH

22. DOCUMENT NO.: G48 0051A

23. FOLLOW-UP ACTION: Home Region

24. PRODUCT CODE(S): 0310

25. DISTRIBUTION: FOCR, EPDS, FOWR

26. ENDORSER'S NAME & TITLE: Eric B. Hulett, Regional Director

CPSC FORM 175 (9/00)

+F020123 : 4 DEC 1990 NOV 26 1990 31

EPIDEMIOLOGIC INVESTIGATION REPORT

1. CASE NO.	2. INVESTIGATOR'S ID	3. OFFICE CODE
900423CCC3377	C073	

4. DATE OF ACCIDENT (YR MO DAY)	5. DATE INVESTIGATION INITIATED (YR MO DAY)
90 01 29	90 08 01

6. SYNOPSIS OF ACCIDENT OR COMPLAINT: A house under construction caught fire resulting in the death of a fire captain when he fell from a second floor landing. It was reported there may have been gas leaks but the cause of fire has not been determined at this time.

7. LOCATION (Home, school, etc.)	8. CITY	9. STATE
House under construction 10	Nichols Hills	OK

10A. FIRST PRODUCT	11A. TRADE/BRAND NAME, MODEL NUMBER, MANUFACTURER & ADDRESS
gas pipes & fittings 0374	Unknown
10B. SECOND PRODUCT	**11A. TRADE/BRAND NAME, MODEL NUMBER, MANUFACTURER & ADDRESS**
0310	Lennox Industries GSR 14Q4/5-80

12. AGE OF VICTIM	13. SEX (Use numerical code) MALE - 1, FEMALE - 2, UNKNOWN - 3	14. DISPOSITION	15. INJURY DIAGNOSIS
040	1	8	Trauma 62 ~~85~~

16. BODY PART	17. RESPONDENT(S) (Mother, Friend)	18. TYPE INVESTIGATION ON SITE 1, TELEPHONE 2, OTHER 3	19. TIME SPENT
Head 75 ~~85~~	fire chief & other 3	1	80

20. ATTACHMENTS	21. CASE SOURCE	22. REVIEWED BY	
"MULTI" 9	05	8120	YR MO DAY: 90 11 09

23. PERMISSION TO DISCLOSE NAMES (NON-NEISS CASES ONLY) — CPSC MAY DISCLOSE MY NAME: ☐ — CPSC MAY NOT DISCLOSE MY NAME: X

24. NARRATIVE (See Instructions on Other Side): ATTACHED

25. REGIONAL OFFICE DIRECTOR REVIEW — DATE

11/26/90

ments made
attached
sions
ested

MFR/PRVLBR NOTIFIED 6/5/98
✓ No Comments made
Comments attached
25c Excisions/~~Revisions~~
✓ Firm has not requested
further notice

(USE OTHER SIDE AND ADDITIONAL SHEETS IF NECESSARY)

IDI 900423CCC3377
October 31, 1990

PRE-ACCIDENT

This house, being built of brick on a concrete slab, was under construction. Having completed their day's work, workmen had closed the house for the day and reportedly left the premises at 5:55 p.m. on January 29, 1990. Different people drove by the house shortly after and reported no problems. At approximately 6:20-6:25 p.m., smoke was noted coming out of the house and at 6:35 p.m. the fire department, through emergency number 911, received three reports of fire at this house.

ACCIDENT

The fire department was dispatched to the scene of the fire. While working the fire, one captain entered the burning house, went to the second floor and apparently on his way to go back down to the first floor fell from a second story landing. Emergency treatment was given the captain but he subsequently died as a result of the accident.

POST-ACCIDENT

The fire department requested and received assistance from the State Fire Marshall, the Department of Treasury, and the Bureau of Alcohol, Tobacco and Firearms (ATF), including its National Response Team for additional expertise and manpower. Copies of their reports are included as part of attachment 2. The reports from the investigation teams indicated that the fire may have started in or near one of the furnace rooms, but the cause of the fire was not determined by these investigators.

A report made available to the local fire department by a registered professional engineer states that "Examination of the gas supply piping to the subject furnaces revealed inadequate makeup of threaded joints and possible defective pipe fittings. At least one separated joint showed signs of distortion and intense heat". See page 2 of 12 of engineer's report (attachment 2).

The report also indicates that "the fire most probably resulted from ignition of combustible dust accumulations inside one of the furnaces, and was not the result of any inherent defect of failure of the furnace". Also, the report states that "The rapidity of expansion of the fire, ...defects in the gas supply pipe fittings and connections, and the absence of flexible gas supply connections at the furnace suggest the possibility of a gas leak or a gas pipe failure as an alternative cause of this fire". See page 3 of 12 of the engineer's report (attachment 2).

A respondent with the State Fire Marshall's Office stated that when the professional engineer started an investigation his office stopped further investigation and accepted the engineer's report concerning cause of fire as reported above.

The home owner referred this investigator to his attorney for any information concerning the fire that might be released under litigation circumstances. During conversations with the attorney, he stated that they were in litigation on this fire and its causes. Therefore, some of the information could not be released until such time as it had been presented in court and at that time it would be public information. He also stated that the engineering firm they were working with was still in the process of having some of the gas pipes and fittings tested for metal fatigue and/or other problems, and that their investigation was not complete at that time.

To date, this investigator has not obtained any further information from the attorney.

PRODUCT IDENTIFICATION

The heating system, including two furnaces, was examined as a potential cause of the fire. These furnaces, forced air gas fired heaters, were described in the above mentioned engineering report as Lennox GSR14 Series Pulse gas furnaces (see page 6 of 12 of engineer's report- attachment 2). In addition, one of these furnaces was further identified as a "Lennox Industries GSR14Q4/5-80, 80,000 btu per hour furnace" (see page 12 of said report and attachment 4).

ATTACHMENTS

1. Assignment - 3 pages.

2. Fire department report which includes other reports as listed below.
    a. Fire department report - 5 pages.
    b. Neighbor city fire department report - 3 pages.
    c. State fire marshall's report - 3 pages.
    d. Department of Treasury report - 10 pages.
    e. Registered Professional Engineer's Report - 12 pages.

3. Death certificate - 2 pages.

4. Lennox Pulse Furnace owner's manual photocopy - 13 pages. Furnished by attorney for homeowner.

Attachment 1
900423CCC3377

U. S. CONSUMER PRODUCT SAFETY COMMISSION
WESTERN REGIONAL OFFICE
555 BATTERY STREET, ROOM 401 - SAN FRANCISCO, CA 94111 - (415) 556-1816

May 4, 1990

ALASKA
ARIZONA
CALIFORNIA
HAWAII
IDAHO
MONTANA
NEVADA
OREGON
UTAH
WASHINGTON
WYOMING
PACIFIC ISLANDS

Ms. Alberta Harmon
Special Hazard Service
Oklahoma Department of Health
P. O. Box 53551
Oklahoma City, OK 73152

Re: S01474315

Dear Alberta:

Please conduct in-depth investigations on the two (2) following attached incidents:

(1) 900418HCC3513 - Crib Death

Contact officials only, not next of kin. Attempt to find out if a bean bag pillow may have been involved.

(2) 900423CCC3377 - Furnace Fire

Also conduct a recall check on The Baby Needs Pacifer Holder (RN 90-0090).

I have also received and approved the two recall checks you submitted on April 20, 1990.

Call me if you have questions.

Sincerely,

Steve Vargo
Public Affairs Specialist

SV:BB

CET

ACCIDENT INVESTIGATION REQUEST FORM

Document Number 7020123

Date of Incident 2/9/90 Category I.D. SECT.0.4/1990

Follow-Up Requested Hazard Analysis Section 15

Type Follow-Up Requested Telephone Call On-Site

Headquarters Contact Larry Hershman

Assignment Message

Accident scenario, & if appropriate, full product identification

RECEIVED
MAY 7 1990
CONSUMER PRODUCT SAFETY

Person(s) to Contact Fire Officials
Mansion Owners
Consultants

Guideline #98 where appropriate

Requested By L Hershman

Task Number 900423.CCC.3377

Assigned to SF Date

CPSC Form 324 (7/87)

FIE 2-H (15)

FD20123

186

OKLAHOMA PRESS CLIPPING BUREAU
3801 N. Lincoln
OKC, OK 73105 • (405) 524-4421
THE DAILY OKLAHOMAN
Oklahoma City, OK
Daily - 248,100

DATE

Equipment From Fire At Mansion Due Tests

The owner of a burned mansion in Nichols Hills will have his own engineer present when a check of heating equipment is done today at the state fire marshal's lab, an attorney said Thursday.

[redacted] and his insurance company had sued to block any tests on the equipment unless their expert was present. A hearing on the lawsuit was called off after an agreement was reached among all parties.

The city of Nichols Hills and the state fire marshal are trying to establish the cause of the Jan. 29 fire that destroyed the [redacted] at [redacted] Nichols Hills fire Capt. [redacted] was killed fighting the blaze.

The mansion was under construction.

The owner and the insurance company wanted their own expert present because they have a "potential products liability case against certain manufacturers of appliances or equipment," according to their lawsuit.

Dup

OKLAHOMA PRESS CLIPPING BUREAU
3801 N. Lincoln
OKC, OK 73105 • (405) 524-4421
SATURDAY OKLAHOMAN
Oklahoma City, OK
Saturday - 230,567

DATE FEB 24 1990

Burned Mansion's Furnaces Probed

186

By [redacted]
Staff Writer

A private consultant hired by the owner of a burned Nichols Hills mansion was among investigators Friday dismantling furnaces retrieved from the ruins, officials said.

[redacted], a Norman engineering consultant, was hired by owner [redacted] and his insurance company because of a potential products liability case against appliance manufacturers.

[redacted] joined a team of investigators at the state fire marshal's storage facility, said state fire marshal [redacted].

"They've begun dismantling two furnaces pulled from the house. One is still working, but the other is melted down and was seriously damaged," [redacted] said.

The fire marshal said he has worked with [redacted] in previous investigations. [redacted] is an expert on heating circuits and can pinpoint where circuits shorted out — even when all that remains is charred debris.

Nichols Hills fire chief [redacted] said the analysis will continue over the weekend.

"We've got people here from Lenox, General Electric, Hill Heating & Air — the company that installed the furnaces in the mansion — and [redacted] people," [redacted] said.

EPDS

5 MAR 1990

900423ccc 3371

ATTACHMENT 2
900423CCC3377

NICHOLS HILLS
FIRE RUN REPORT

DATE: 1-29-90 RUN # 70 TIME: 1839

LOCATION: [redacted] WILSHIRE ALARM METHOD: POLICE - 911

RESPONDING COMPANIES: ENG; 31 - 32 V-1 V-2 V-5 V-10 V-14 V-12 SQ; 31 BP-35 CAR; 30 - 34 AIR-1 601 602 604 HT-24

M/A COMPANIES: E-22 E-11 E-17 E-5 E-14 E-10 T-22 T-5 T-14 S-17 S-1 TP-18 NH-14 V-15

NO. OF MEN RESPONDING: OC - 50 NO. OF MEN IN STATION: 0

TIME IN SERVICE: ENG; 31-420 SQ; 31-420 CAR 34-440 30-450 OTHER; BP-35 E-32 72 HOURS

CAUSE OF EMERGENCY: FIRE ORIGINATING IN HEATER CLOSET ON EAST SIDE OF STRUCTURE SPREADING to the Attic Area. SOURCE HAS NOT BEEN DETERMINED AT TIME OF REPORT.

DAMAGE EST: 3,000,000.00 INS. CO. UNION COMM. 1.5 MIL.

WEATHER COND: WIND 17 MPH DIRECTION SOUTHSE 170° TEMP 57° HUM: 16%

EQUIPMENT USED: 100' OF 4" 250' OF 1¾" 200' OF 2"
2-SCBA. MONITOR —— 400' 3" 200' 1½"
PORTABLE MONITOR

EQUIPMENT LOST OR DAMAGED: 150'-1¾ HOSE — NOZZLE — 1 S.C.B.A. — 1 CYLINDER 1 HANDHELD RADIO — 1 FLASHLIGHT — 2 HELMETS — 1 BUNKER GEAR

PERSONNEL: CHIEF [redacted] CAPT [redacted]

SGT [redacted] FF [redacted]

INJURIES: [redacted]

REMARKS: WHILE PERFORMING HIS DUTY ON THE FIRE SCENE CAPT. [redacted] DIED WHEN HE FELL FROM THE SECOND STORY LANDING.

DIAGRAM OTHER SIDE

COMPILED BY SGT. [redacted]

STATE OF OKLAHOMA FIRE INCIDENT REPORT

4030 North Lincoln Boulevard — Oklahoma City, OK 73105

Address [redacted]		Apt. No.	
Owner/~~Tenant Name~~ [redacted]			
Number of Officers Responding 20		Number of Firefighters Responding 59	
1	Fire Department Number	0428	1-3
2	Run Number	70	4-10
3	Date of Fire	1-29-90	11-16
4	Time of Day	1839	17-20
5	Fire Outside City Limits Fire Inside City Limits	1 (2)	21
6	Building Value	3,000,000.00	22-29
7	Building Loss	TOTAL	30-37
8	Building Insurance Amount	1,500,000.00	38-45
9	Contents Value	N/A	46-53
10	Contents Loss		54-61
11	Contents Insurance Amount		62-69
12	Other Value		70-77
13	Other Loss TOOLS & EQUIPMENT	15,000.00	78-85
14	Other Insurance Amount		86-93
15	Vehicle Value		94-101
16	Vehicle Loss		102-109
17	Vehicle Insurance Amount		110-117
18	Number of Firefighters Insured (Complete Form #31)		118-119
19	Number of Firefighters Deaths (Complete Form #31)	1	120-121
20	Number Civilian Deaths from Fire (Complete Form #31)		122-123
21	Number Civilian Injuries from Fire (Complete Form #31)		124-125

(SPECIAL INFORMATION AND/OR DIAGRAM)

Authorized Signature [redacted]

NICHOLS HILLS, Oklahoma

SFM-30 (Rev. 5/83)

STATE OF OKLAHOMA FIRE INCIDENT REPORT

22 TYPE OF RUN 126-127

01 Grass
02 Trash
03 Mobile Property
04 Structure
05 False Alarm
06 Smoke Investigation (No Fire)
07 Standing Crops
08 Forest Lands
09 Other Property of Value
10 Malfunction of Alarm

23 PROPERTY CLASSIFICATION 128-129

Institutional
31 Nursing Home
32 Child Care Center
33 Hospital
34 Penal Institution
35 Other Institution

Public Assembly
36 Church/Funeral Parlor
37 Restaurant
38 Tavern/Night Club
39 Drive-In, Quick Food
40 Motion Picture Theatre
41 Other Public Assembly

Educational
42 Public School
43 College/University
44 Other Educational

Basic Manufacturing/Industrial
45 Transformers & Vaults
46 Farm Crops, Orchards
47 Forest Fires
48 Light Manufacturing
49 Heavy Manufacturing
50 Cotton Gin
51 Refinery
52 Dry Cleaning/Laundry
53 Other Industry & Manfg.

Storage
54 Barn
55 Grain Elevators
56 Lumberyard
57 Bulk Flammable Liquid
58 Residential Garage
59 Warehouse
60 General Storage Shed
61 Other Storage Property

Residential
62 House, 1 & 2 Family
63 Apartment
64 Dormitory
65 Mobile Home
66 Motel/Hotel
67 Other Residential

Mercantile
68 Supermarket
69 Grocery Store
70 Clothing Store
71 Furniture Store
72 Hardware Store
73 Laundry/Dry Cleaner
74 Barber/Beauty Shop
75 Service Station
76 Motor Vehicle (Repair/Paint Shop)
77 Department Store
78 Variety Store
79 Other Mercantile

Office
80 General office
81 Court House
82 Other Office

Special
83 Field, Park, Public Land
84 Dump
85 Road Property, County
86 Road Property, State
87 Building Under Constr.
88 On-Site Bldg. Material
89 Railroad Right-of-Way
90 Lawn
91 Other Special Not Classified

(Continued)

PROPERTY CLASSIFICATION (Cont)

Vehicles
92 Automobile
93 Motor Home/LRV
94 Travel Trailer
95 Road Transport
96 Truc, over 1-ton
97 Pickup
98 Railroad Car
99 Aircraft
100 Heavy Equipment, Other
101 Tractor Harvester, Picker
102 Motorcycle
103 Van
104 Trailer
105 Other, Vehicle

24 HEAT SOURCE 130-131

Electrical
01 Short Circuit
02 Arc from Faulty Equip.
03 Flourescent Light Ballast
04 Cord Plug
05 Fixed Wiring
06 Fixed Elec. Appliance
07 Portable Elec. Appliance
08 Overheating of Wiring
09 Other, Electrical Source

Open Flame or Spark
10 Welding/Cutting Torch
11 Match
12 Lighter
13 Open Fire
14 Natural Gas Appliance
15 Spark from Fireplace
16 Spark from Locomotive Vehicle Exhaust
17 Other, Open Flame

Explosives & Fireworks
18 Fireworks
19 Incendiary Device
20 Other, Explosives

Natural Sources
21 Sun's Heat
22 Spontaneous Ignition
23 Lightning
24 Other Natural Sources

Heat From Object
25 Friction
26 Hot Ember or Ash (Other than Smoking)
27 Molten or Hot Material
28 Spark from Cigarette, Cigar or Pipe
29 Rekindle
30 Heat from Properly Operating Electrical Equipment
31 Heat from Improperly Operating Electrical Equipment
32 Heat from Properly Operating Natural Gas-fired Equipment
33 Heat f Improperly Operating Natural Gas-fired Equipment
34 Heat from Solid Fuel Equip.
35 Train/Hot Box
36 Overheated Electric Motor
37 Vent/Flue
38 Heat from Another Hostile fire
39 Vehicle Exhaust
40 Other, Hot Object

All Other Sources of Heat
41 Use if no other category clearly defines
42 Unknown Heat source

25 MATERIAL FIRST IGNITED 132-133

01 Natural Gas
02 Liquified Petroleum Gas
03 Liquid Flammables
04 Fat or Grease
05 Chemical
06 Paint, Vrnish
07 Plastic
08 Grass, Leaves, Hay, etc.
09 Rubber
10 Food
11 Wood
12 Paper, Cardboard, etc.
13 Fabrics, Fur, etc.
14 Lint
15 Dynamite
16 Other Material
17 Unknown Material

26 AREA OF ORIGIN RESIDENTIAL ONLY 134-135

01 Kitchen
02 Dining Room
03 Living Room
04 Den
05 Bedroom
06 Bathroom
07 Laundry Room
08 Heather Closet
09 Clothes Closet
10 Garage
11 Attic
12 Porch/Balcony
13 Lawn/Patio
14 Hallway
15 Stairway
16 Wall/Ceiling
17 Roof
18 Storage Area
19 Basement
20 Outside Building
21 Under Building
22 Other, Area of Origin
23 Unknown Area

27 EQUIPMENT/APPLIANCE CAUSING IGNITION RESIDENTIAL ONLY 136-137

01 Air Conditioner
02 Clothes Dryer
03 Cooking Range
04 Electrical Motor
05 Electrical Distribution Equipment
06 Fuel-Fired Appl. Not Listed
07 Electrical Appl. Not Listed
08 Furnace
09 Heating System
10 Hot Water Heater
11 Refrigerator
12 Room, Space Heater
13 Radio
14 Television
15 Toaster
16 Washing Machine
17 Other, Equip/Appliance Not Listed

28 ACT OR OMISSION 138-139

Arson
01 Incendiary Act by Individual
02 Incendiary Act by Two or More
03 Suspicious Act
04 Suspicious Act During Civil Disturbance

Misuse of Heat Ignition
05 Discarded Material, Cigar/Cigarette
06 Thawing
07 Failing Asleep or Lost Control of Muscle
08 Inadequate Control of Open Fire
09 Cutting or Welding Too Close
10 Children Playing
11 Intentional, Not Malicious
12 Other Misuse

Misuse of Material
13 Flammable Spilled Accidentally
14 Improper Fueling Technique
15 Flammable Liquid Used to Kindle Fire
16 Washing Parts
17 Combustible Placed Too Close to Heat
18 Improper Storage
19 Children Playing
20 Flue/Vent Too Close to Combustibles
21 Intentional, Not Malicious

Other Act or Omission
22 Mechanical Part Failure
23 Engine Back-fire
24 Vehicle Accident
25 Act of Nature
26 Automatic Control Failure
27 Lack of Maintenance
28 Construction Deficiency
29 Cooking
30 Improper Installation
31 All other Acts or Omissions
32 Unknown

STATE OF OKLAHOMA
FIRE DEATH OR INJURY INCIDENT REPORT

DATE 1-29-90

1	Fire Department Number	--	0428	1-3
2	Run Number		70	4-10
3	Name of Victim	[redacted]		11-40
4	Street Address of Fire Location	[redacted] WILSHIRE		41-70
5	Fire Fighter Civilian		(1) 2	71
6	Injury Death		1 (2)	72
7	Death or Injury From:	Smoke Inhalation Burns Falling Debris Heart Attack Other FALL	1 2 3 4 (5)	73
8	Race	White Black American Indian Hispanic Other	(1) 2 3 4 5	74
9	Sex	Male Female	(1) 2	75
10	Age	Under 1 year Ages 1-4 Ages 5-9 Ages 10-15 Ages 16-24 Ages 26-61 Ages 62-75 Over Age 75	1 2 3 4 5 (6) 7 8	76
11	Occupancy Type, Where Death or Injury Occurred:	One/Two Family Dwelling Apartment Mobile Home All Others	(1) 2 3 4	77
12	Act or Omission Causing Fire	Arson or Suspicious Smoking Tobacco Incident Accidental Ignition of Flammable Liquid Child/Children Playing Electrical Fault Appliance Malfunction Natural Gas Explosion Other	1 2 3 4 5 6 7 (8)	78

DEATH: Attended ( ) Unattended (X)

Was Autopsy Performed: Yes (X) No ( )

Victim's Home Address: [redacted]

Victim was Transported to: [redacted] HOSPITAL By [redacted]

SFM-31 (Revised 5/83)

4449

902F

BASIC INCIDENT REPORT

Fill In this Report In Your Own Words

Oklahoma City Fire Dept.

☐ Revised Report

FD ID	Incident No.	Index No.	Mo.	Day	Year	Alarm Time	Time on Scene	Time Last Unit Clear
430	2776	00	1	29	90	1846	1851	0111

Location/Address: [redacted] Wilshire Blvd. City/Town: Okla. Okla. Zip Code: 73116 Property No.: N/A

Occupant Name (Last, First, MI): VACANT Telephone No.: N/A Room or Apt.: N/A

Owner Name (Last, First, MI): [redacted] Address: [redacted] Telephone No.: 755-1291

Method of Alarm to Fire Department: Nichols Hill Fire Dept. 14 Type of Incident: Structure Fire 111

Type of Action Taken: Extinguishment 115 District: 231 Shift: A No. Alarms: 3 Mutual Aid: ☐ Rec'd. ☒ Given ☐ N/A

General Property Use: Residential use 411 Specific Property Use: Under Construction 41119 County: | | | Census Tract: | | | |

No. Injuries* Fire Service: 10 Other Emerg.: 10 Civilian: 10

No. Fatalities* Fire Service: 10 Other Emerg.: 10 Civilian: 10

No. Fire Service Personnel Responded: 19 No. Engines Responded: 16 No. Aerial Apparatus Responded: 13 No. Other Vehicles Responded: 18

Condition of Fire upon Arrival of First Unit: Flame Showing large Area 15 Time from Alarm to Agent Application: 6 to 9 Min. 14 Area of Fire Origin: undetermined 10

Equipment Involved in Ignition: undetermined 10 Year: | Make: | Model: | Serial No.:

Form of Heat of Ignition: undetermined 10 Material First Ignited: Form/Use undeter. 10 Type undeter. 10

Ignition Factor: undeter. 10 Method of Extinguishment: water from hydrant 16

Property Damage Classification: N/A 11 No. Buildings Damaged: one 1 Total Value: N/A 15 Termination Stage: After Flame Stage 12

Construction Type: Brick Veneer 13 No. of Stories: Two Story 12 Level of Origin: undetermined 10

Structure Status: under construction 1 No. of Occupants at Time of Incident: none 18

Material Generating Most Flame: Form/Use undeter. 10 Type undeter. 10 Factor Contributing to Flame Travel: undeter. 10

Material Generating Most Smoke: Form/Use undeter. 10 Type undeter. 10 Avenue of Smoke Travel: undeter. 10

Detector Type: undeter 10 Detector Power Supply: N/A 18

Detector Performance: N/A 18 Reason for Detector Failure: N/A 18

Sprinkler System Performance: none 18 No. of Sprinkler Heads Opened: none 10 Reason for Sprinkler System Failure: N/A 18

Extent of Flame Damage: Confined to Struc. 16 Extent of Smoke Damage: Confined to Struc. 16 Extent of Extinguishing Agent Damage: no damage 18

Mobile Property Type: | Year: | Make: | Model: | Serial No.: | License No.:

No. of Private Acres Burned: | No. of Federal Acres Burned: | No. of Other Public Acres Burned: |

Fuel Model: |

Member Making Report: [redacted] Date: 1-29-90 Officer in Charge (Name, Position, Assignment): [redacted] Date: 1-29-90

Remarks: Mutual Aid given to Nichols Hill Fire Dept on large home well involved.

☒ Remarks continued on reverse side.

* A Form 902G must be completed for each Fire Casualty.

COMPLETE ON ALL INCIDENTS

COMPLETE ON ALL FIRES TI 10-19

COMPLETE IF FIRE TYPE OF INCIDENT (TI) 10-19 FOR STRUCTURE FIRE TI 11-13 TI 12-14 TI 15

COMPLETE ON ALL INCIDENTS

Companies responding

Engr # 5-10-11-14-17-22, Tek # 5-14-22, Sgd # 1-17

601 - 602 - 604

Inquiry for Incident No 90-002776 Exposure No 000

Incident Type: 11 STRUCTURE FIRE Category:

Location Data

House: 1000 Street: MUTUAL AID, OK
Apt Rm: Desc: [redacted] WILSHIRE BLVD.,NI. RD: 231 Map: 4449
Zip Code: 73116- Census: Parcel: -

General Information

Occ/DBA: UNDER CONSTRUCTION Relationship:
Owner: [redacted]
Address: [redacted] Phone: [redacted] x:
City: OKLA.
Manager: Phone: - - x:
Address: City:

Incident Data

Date: 012990 MONDAY Time: 1846 Aid:
Alarm: 4 RADIO (FD, PD, Alarm Company:
Station: 01-01 Shift: A Dispatched as: FSTRUC STRUCTURE FIRE
Condition on Arrival: LARGE HOUSE WELL INVOLVED

Incident Reporting

Entered By: GM5617 [redacted] Rank: BC Date: 013190
Verified By: GM5617 [redacted] Rank: BC Date: 013190
Locked: Y FIRS Required: Y FIRS Status: Date:

Local Data Fields

050	Complete on All Incidents:		
053	Line F:		
054	Type of Action Taken:	15	EXTINGUISHMENT
055	Number of Alarms:	03	
056	Mutual Aid:	G	
058	Line G:		
059	General Property Use:	41	1 OR 2 FAMILY RESIDENTIAL USE
060	Specific Property Use:	419	1-2 FAMILY DWELLING NOT CLASSIF
062	Line H:		
064	Number of Injuries:		
065	Fire Service Personnel:	000	
066	Other Emergency Personnel:	000	
067	Civilians:	000	
068	Number of Fatalities:		
069	Fire Service Personnel:	000	
070	Other Emergency Personnel:	000	
071	Civilians:	000	
073	Line I:		
074	No. Fire Personnel Responded:	049	
075	No. Engines Responded:	006	
076	No. Aerial Apparatus Responded:	003	
077	No. Other Vehicles Responded:	008	
080	Complete for All Fires:		
081	Line J:		
082	Condition Of Fire on Arrival:	5	FLAMES SHOWING FROM LARGE AREA
083	Time From Alarm To Agent Appl.:	4	6 TO 9 MINUTES
084	Area of Fire Origin:	00	AREA OF ORIGIN UNDETERMINED NOT
088	Line K:		
089	Equipment Involved in Ignition:	00	UNDETERMINED OR UNREPORTED
090	YEAR:		
091	MAKE:		
092	MODEL:		
093	SERIAL NUMBER:		
095	Line L:		

STATE OF OKLAHOMA

OFFICE OF THE FIRE MARSHAL

Form #7

NUMBER		IN OR NEAR: LOCATION: NICHOLS HILLS (Oklahoma County) OKLA.	
)-71	[redacted] Wilshire Nichols Hills, Oklahoma 73505	OBJECT: Vacant Dwelling/FATALITY (1)	DATE OF FIRE 1/29/90
		REQUESTED BY Fire Chief [redacted]	DATE OF REQUEST 1/29/90
RT BY [redacted]		STATUS OPEN	RESPONSE DATE 1/30/90

SUMMARY OF INFORMATION IN REPORT

On Monday, January 29, 1990, at approximately 6:40 p.m., the Nichols Hills Fire Department responded to a structure fire located at [redacted] Wilshire, within the City of Nichols Hills. This dwelling was owned by [redacted] it was in the later stages of construction and was a total loss from the fire. A firefighter lost his life in this fire incident, being further identified as:

CAPTAIN [redacted]
W/M, Age 40 - DOB: 8/24/49

A request for assistance was submitted by Fire Chief [redacted], to help determine the cause of this fire. Upon date of response to the fire scene location, a briefing was conducted with Fire Chief [redacted], learning the above information, which was followed by an examination of the fire scene. During the initial examination of the fire scene, it was determined that the fire may have originated in the southeast center of the two story structure, and then progressed to the northwest front, by prevailing winds out of the south and east.

While conducting the fire scene examination, Agents [redacted] and [redacted], of the Bureau of Alcohol, Tobacco and Firearms responded to the fire scene location. Following a briefing with the two agents, a decision was made to activate the National Response Team of the A.T.F., primarily for the expertise and manpower that this investigative team could provide. All work was stopped and the scene was secured until the National Response Team could assemble the following day.

The next day of the investigation, a briefing was conducted with all A.T.F. Agents, the undersigned and State Fire Marshal [redacted] Assignments were made and the investigation continued with the undersigned Agent working with the cause and origin team.

ES TO:	DATE SENT	AUTHORITY OF	REPORT APPROVED
[redacted] Nichols Hills Fire Department, [redacted], Oklahoma City, OK 73116	2-15-90	[redacted]	[redacted]

Following three (3) days of extensive investigation, all known facts pertaining to the fire cause, and the events leading to the firefighter's death, were compiled for the final briefing and reporting.

At approximately 6:35 p.m. on the day of the fire, Nichols Hills Police Officer [redacted] reported by radio, smoke coming from residence, followed by two (2) 911 telephone calls. Captain [redacted] of the fire department was the first responding fireman, followed by a second unit of Nichols Hills and followed by The Village Fire Department units. Captain [redacted] made entry into the structure by the front entry door, with a hand line from the Nichols Hills truck. A second fireman arrived to assist [redacted], laying the nozzle and hand line on the entry stairs, he then left to get an airpack from his unit. Arriving back in the structure within a minute or so, he noted the hand line had been advanced up the stairway. He then heard the bell from [redacted] airpack. By following this sound he found [redacted] on the floor by the east side of the stairs, in a puddle of blood and he was not breathing. He tried to pull [redacted] from the structure by himself and then received help in doing so, from a Village fireman. At that time the air was cool with a minimal amount of smoke on the first floor level. Attempts to revive the fireman were conducted outside.

In this part of the investigation the facts indicate that Captain [redacted] had entered the structure and had advanced the hand line up the stairs and down the east hallway an undetermined distance. At which point he left the line, and for unknown reasons had tried to exit the same way he came in. At this point, it was speculated, that he may have tripped on the toe board around the open upstairs landing, or he may have missed the steps, he then fell from the open landing an estimated fourteen (14) feet from the floor. It is believed that his head struck the metal strap on the side wall of the stairs causing severe, if not fatal, head injuries at that time, before falling to the floor. The hand line and nozzle were recovered from the debris. Also, his helmet, radio and flashlight were found on the floor to the east of the stairs.

The investigation continued into the possible cause for the fire. After a thorough examination, each of the fire investigators concluded, that the fire occurred at a high level, adjacent to the east wall. Removal of the fallen debris in this area was conducted, examining each layer of materials as it was removed. The more pronounced, intense heat patterns, extended to the area of the forced air, gas-fired heaters, in an enclosed area located on the first floor, at the center of the east wall. Further examination of this area concluded that the fire may have originated within, or directly adjacent to, this heater enclosure. As evidenced by the intense heat at the higher levels of the heaters and/or the exposed supply air ducting within this area.

In summation, while the fire cause could not be exactly determined, the most probable cause would appear to be in or around the heating system in this area. What malfunction occurred, if any, could not be identified.

At the time of this report, the gas-fired heating appliances are being examined by mechanical/electrical engineers, retained by the owner and the City of Nichols Hills. Their findings are not reported at this time.

[redacted], Agent
STATE FIRE MARSHAL

OKLAHOMA STATE FIRE MARSHAL
4030 North Lincoln Boulevard Suite 100
OKLAHOMA CITY, OKLAHOMA 73105

FILE NO. 190-71
Okla Co.

FIRE INVESTIGATION REPORT

DATE OF FIRE Mon 1-29-90 19__ TIME OF FIRE 6 40 A.M. - (P.M)

ADDRESS/LOCATION [redacted] Wilshire

CITY OR TOWN Nichols Hills

REQUESTED BY [redacted] F.D. ✓ S.O. ___ P.D. ___ OTHER Fire Chief

DATE OF REQUEST 1-29-90 19__ TIME OF REQUEST ___ A.M. - P.M.

AGENT ASSIGNED [redacted] DATE ASSIGNED 1-30-90 RESPONSE DATE 1-30-90

TYPE OF PROPERTY Dwelling NAME OF BUSINESS N/A

OWNER [redacted] ADDRESS 1612 Wilshire

CITY OR TOWN Nichols Hills TELEPHONE NUMBER —

TENANT Unoccupied ADDRESS —

CITY OR TOWN — TELEPHONE NUMBER —

ORGIN OF FIRE Suspect at heater enclosure - 1st floor - on east side.

CIRCUMSTANCES Dwelling under construction - unoccupied - total loss - Firefighter Fatality.

CAUSE DETERMINATION Exact cause undetermined - believed to be accidental.

INSURANCE INFORMATION (if available) Commercial Union - Dallas, Tx.

FIRE INJURY (FATALITY) Capt. [redacted] - 40 yr W/M - 8-24-49 DOB

SMOKE DETECTOR INSTALLED: Yes ___ No ✓ SMOKE DETECTOR OPERABLE: Yes ___ No ✓

REMARKS ATF conducted detailed investigation upon request of this office - assisted by undersigned.

DATE 1-30-90 19__ AGENT [redacted] (Signature)

DEPARTMENT OF THE TREASURY
BUREAU OF ALCOHOL, TOBACCO AND FIREARMS

REFER TO

TO: Special Agent [redacted]
Bureau of Alcohol, Tobacco and Firearms
Oklahoma City, Oklahoma 73102

IN 53247 90 4530E
Date February 6, 1990

On January 30, 1990, I was directed to respond to Oklahoma City (Nichols Hills), Oklahoma to join [redacted], Explosive Enforcement Officer and [redacted], Section Chief, San Francisco Laboratory Center in the investigation of a residence fire which took the life of a Nichols Hills fireman. The fire at [redacted] Wilshire was reported by a police officer on patrol at 1835 hours, January 29, 1990. The fire of unknown origin and cause destroyed the $3.5 million dollar 17,000 square foot house.

GENERAL:

The [redacted] residence at [redacted] Wilshire had been under construction for more than eighteen (18) months and was completed to the point of interior painting and finish work. The house consisted of two stories and had outside dimensions of approximately 140'x130'. Based on the reporting witnesses, police officers and fire personnel who were first in the house, this fire investigation focused on the area between the kitchen and family room to include a double furnace room adjacent to the kitchen. The second floor, attic and roof were completely destroyed by the fire.

CONSTRUCTION:

The structure consisted of brick veneer over 2x6 stud walls on a concrete slab. The first and second floor had 12' ceiling heights with the second floor built of 18" wood trusses, 1 1/4" plywood and light weight concrete under marble flooring. The roof consisted of 2x8 rafters decked with 5/8" plywood, tarpaper, composition roofing and overlaid with concrete tiles on 1x4 strips. There were several laminated beams and steel I beams supporting different portions of the second floor and exterior walls.

The gas and electric service entered the house through an equipment room at the southeast corner of the building. The gas service entered with a 3" line then branched off to various portions of the house through the second floor truss space.

Floor plans and photos are attached for visual interpretation.

WITNESS REPORTS:

The fire was reported almost simultaneously by a Nichols Hills police officer, passersby and neighbors at 1835 hours. The last employees in the house had finished work and secured the premises at about 1800 hours. There were no fire or burglar alarms in the residence. The reporting witnesses all observed smoke coming over the ridge of the roof in an area above the kitchen. This area coincides with the location of the roof vents where the attic over the family room joins the attic over the main east/west portion of the living area. This is also the area where flames first break through the roof. Wind direction was from the south. The first police officer on the scene looked in the first floor front rooms of the house, including the kitchen, and observed neither smoke nor fire. The first fireman to enter the residence, the captain who was subsequently killed in a fall from the balcony, forced the front door and proceeded up the stairs a short distance. He was joined by a second fireman, not wearing a SCBA, at the foot of the stairs. The captain ordered the fireman to return to the truck and put on his SCBA. This fireman reported the first floor as clear of smoke or fire at this point but cool smoke beginning to descend down the stairs from the second floor. He did not feel any heat or see any flames at this time. When he entered the house after donning his SCBA he observed the hose line advanced up the stairs but heard the low pressure alarm on the captains SCBA ringing to the left of the stairs and on the first floor. Smoke was below head height at this time but light enough that he could find the captain with his flashlight. The captain was lying on the floor about fifteen feet inside the front door.

Natural gas was cut off to the structure at 1858 hours with a final reading of 3874.

Neighbors, passersby and news crews made photographs and videos of the fire in progress. These have been used to document fire spread and to aid in this investigation.

SCENE PROCESSING:

Scene processing by ATF and the Oklahoma State Fire Marshal's Office began on January 31, 1990. This processing was divided into two principle areas; the main stairway/balcony area where the fireman died and the area

between the kitchen and family room to include the double furnace room on the east wall next to the kitchen entrance. This processing was conducted with a Nichols Hills police detective should subsequent investigation determine criminal activity had resulted in the captain's death.

Processing of the stairway/balcony area revealed that the captain had advanced the hose line up the stairs and to the left towards the studio on the second floor and below the area where smoke was observed venting out of the roof. The nozzle and several feet of hose were recovered from the collapsed balcony and hallway.

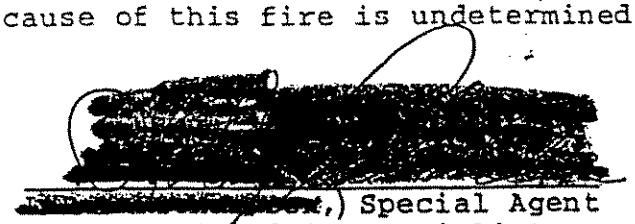
Processing of the furnace room and surrounding area began with an overall observation that significant portions of laminated wooden beams remained in the front and rear portions while they were absent in the area adjacent to the double furnace room. Portions of the east exterior 2"x6" stud wall remained in the room adjacent to the furnace room but are absent inside the furnace room. The brick veneer wall above the furnace room doors shows smoke and fire damage consistent with a fire while the second floor was intact. The framing supervisor confirmed that the furnace room was isolated from the contiguous first floor living area by a 2x6 partition wall, 2 layers of 5/8 fire rated sheetrock, sound board and insulation. It was accessed only by the double metal doors on the east exterior wall. A flexible vent ran from the furnace room through the second floor studio, across the studio ceiling and into the common attic at the point near where smoke was first observed by reporting witnesses. The vent had been concealed in a wood and sheetrock fur down for appearance.

The furnace room was carefully detailed and the following was observed: the bottom inside panels of both metal doors were completely melted through; the 2x6 which served as a threshold was almost completely consumed, there was melted aluminum pooled on the floor, the gas lines to both units were both broken and the furnace aluminum components had melted; a stack of disposable furnace filters was found on the floor in front of the south unit. The interior of the furnaces were not examined. The overall condition of this furnace room and contents demonstrated markedly greater damage than a similar furnace located about 16' south. In addition an identical double furnace room in the southwest portion of the residence was compared with the subject furnace room for difference in fire spread and degree of damage.

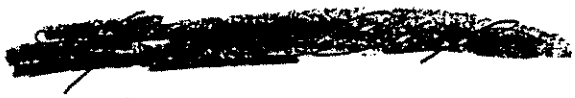
Custody of the scene was given over to the Chief of the Nichols Hills Fire Department when processing was complete on February 1, 1990.

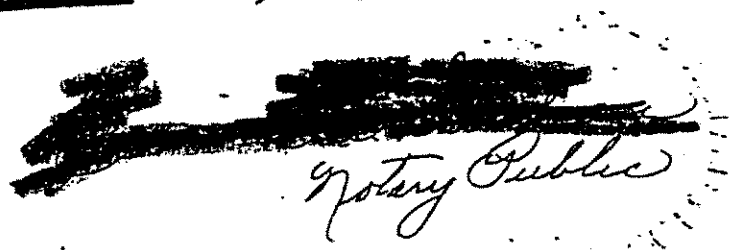
CONCLUSION:

Based on the above, it is the opinion of the assigned that the fire which destroyed the Kuykendall residence originated in the area of the furnace room adjacent to the kitchen. The cause of this fire is undetermined at this time.



[redacted], Special Agent
Cause and Origin Specialist





Notary Public

My Commission expires May 30, 1993.

RCS ATF P 3270.1

ARTMENT OF THE TREASURY - BUREAU OF AL... IOL, TOBACCO AND FIREARMS

1. INVESTIGATION ☒ ROUTINE ☐ SENSITIVE ☐ SIGNIFICANT

Page 1 of ___ pages

REPORT OF INVESTIGATION (Law Enforcement)

2. pecial Agent in Charge
allas District Office

3. MONITORED INVESTIGATION INFORMATION *(Number and Branch)*
AI:CIP:DALLAS:FY-93:Arson

4. TLE OF INVESTIGATION
[redacted]

5. INVESTIGATION No. *(Include Suspect No.)*
53247 93 4539 D

6. PROJECT(S)

TYPE OF REPORT *(Check applicable boxes)*			7. BUREAU PROGRAM				
PRELIMINARY		COLLATERAL *(Request)*		TITLE I	FIREARMS		TARGETED OFFENDER
				TITLE II			TERRORIST/EXTREMIST
STATUS		COLLATERAL *(Reply)*		TITLE VII			OCD
				TITLE II	EXPLOSIVES		ITAR
FINAL		INTELLIGENCE		TITLE XI			SEAR
				TOBACCO			OMO
SUPPLEMENTAL		REFERRAL *(Internal)*		ALCOHOL		☒	OTHER *(Specify)* Arson

ETAILS:

is report relates to the investigation which was conducted by the Oklahoma ty Post of Duty, members of the Tulsa Post of Duty, and Dallas Arson Group the fire which occurred on January 29, 1993, at [redacted] Nichols lls, Oklahoma, a suburb of Oklahoma City. The fire resulted in the death of chols Hills Fire Department Capt. [redacted] and the total destruction of 17,000 square foot, $3.5 million residence.

January 30, 1993, [redacted], Assistant Fire Marshal, Oklahoma State Fire rshal's Office, Oklahoma City, Oklahoma, contacted Special Agent [redacted] and requested ATF assistance in the investigation of the fire that had sulted in the death of Capt. [redacted] Mr. [redacted] said that the chols Hills Fire Department had requested their assistance, however they uld only be able to provide one investigator, [redacted]. He advised that ey needed assistance because of the loss of life and the large scene.

this same date Special Agents [redacted] and [redacted] oceeded to the scene of the fire and met with Investigator [redacted]. It was termined that the residence had been a two story house in the final phases construction, and had a total area of approximately 17,000 square feet. e residence had been entirely destroyed, with the exception of outside walls d a garage which was separated from the house by a drive through carport. ents [redacted] and [redacted] requested additional ATF assistance on the ene and the ATF explosive investigation vehicle. Special Agents [redacted], from the Dallas Arson Group, responded to the scene with e ATF explosive investigation vehicle. Special Agents [redacted] and [redacted], from the Tulsa, Oklahoma office, also responded to the scene. [redacted], from the Explosive Technology Branch in Washington, D.C., and [redacted], from the ATF Laboratory in Walnut Creek, California, were ntacted to assist. Both arrived in Oklahoma City on this same date.

January 31, 1993, an initial briefing was held at the Nichols Hills Police partment. Investigator [redacted] and Agent [redacted] were placed in charge of

[redacted] Commission expires 5-30-93 Notary Public

SUBMITTED BY (Name) [redacted]	11. TITLE AND OFFICE Special Agent, Oklahoma City POD	12. DATE
REVIEWED BY (Name) [redacted]	14. TITLE AND OFFICE Resident Agent in Charge	15. DATE
APPROVED BY (Name)	17. TITLE AND OFFICE Special Agent in Charge, Dallas PO	18. DATE

DETAILS (Continued)

the scene investigation and Agent Richardson was assigned to determine the cause and origin of the fire. Special Agents [redacted] and [redacted] were assigned to assist with the scene investigation. Major [redacted], Nichols Hills Police Department, was also assigned to the scene so that should a maliciously set fire be discovered, a homicide detective would be there. Special Agent [redacted] coordinated the interview teams consisting of Special Agents [redacted] and [redacted].

Chief [redacted], Nichols Hills Fire Department, and the arriving firefighters provided the following sequence of events on the evening of January 29, 1998. The initial fire alarm came in on a 911 telephone call at 6:35 PM, and the first arriving units were Capt. [redacted], in Squad 32, and firefighters [redacted] and [redacted] at 5:42 PM. Two Village firefighters, Wayne Caldwell and Ken Henson, arrived at the scene at the same time the Nichols Hills Fire Department did. Capt. [redacted] entered the front door of the residence with a handline over his shoulder and proceeded up the staircase. He was joined by [redacted]. He instructed [redacted] to put on an airpack and come back in to help. When [redacted] returned, he started up the staircase and heard [redacted] warning bell to the left of the stairs. He went to investigate and found [redacted] body on the floor. He pulled the body out of the scene and called for Amcare, however [redacted] was already dead from the fall. The Oklahoma City Fire Department responded to the fire and assisted the other two departments extinguish it.

The residence was a project started by [redacted], a local millionaire, for his family in 1987. He was building the residence in the exclusive Nichols Hills area of Oklahoma City. The residence was two story with approximately 17,000 square feet of living area and garages for five cars. There were six fireplaces in the residence. The reported estimate of the cost was $2.5 to $3 million and the project was in it's final phase. It was also reported that [redacted] was building the house himself and only had a supervisor on the site to oversee the construction by sub-contractors. It was also reported that he was paying cash for the residence and had not financed any of the house during the construction. [redacted] signed a Consent to Search Form on the morning following the fire.

On January 31, 1998, the scene investigation was initiated and it was determined that the walls and the tall chimneys would have to be knocked down in order to render the building safe to work in. When this had been accomplished the area just inside the main entrance was detailed in an effort to locate some of Capt. [redacted] equipment, which had been left inside the residence the night of the fire. Located

inside the entrance area was Capt. Stroud's air mask apparatus, his radio, his flashlight, pieces of his face shield, and parts of his fire helmet. There was also parts of the handline found, which Capt. [redacted] carried up the stairs and down the hall. The interviews with the first in firefighters suggested that the fire began on the east side of the residence and examination of the scene was initiated towards that area.

A command post was set up at the Nichols Hills Police Department and the interview teams worked out of that location. Agent [redacted] coordinated the interview teams and conducted interviews of subjects who telephoned information into the NHPD. The interview teams were divided into several separate categories. All responding fire, police, and Amcare personnel, all contractors and employees in the residence the day of the fire, witnesses, to include a neighborhood, and insurance, television footage, and other miscellaneous leads. During the first day numerous leads were developed regarding the possibility of suspect and suspect vehicles in the area of the scene at the time of the fire. All of these leads were followed and numerous interviews were conducted. Agent [redacted] was able to obtain video footage of the fire from all three local Oklahoma City television channels for review by the cause and origin personnel. She was also able to develop information that the house was insured by Commercial Union, in Dallas, Texas. Through interviews with the local underwriter, [redacted] May, Oklahoma City, Oklahoma, it was determined that the residence was insured for $1.5 million, builders risk insurance, and the policy had been written in July 1988. The deductible was $5,000 and there was an additional amount of $50,000 insurance on woodwork being done away from the premises.

Through interviews with fire and police personnel, Agent [redacted] was able to establish how certain doors had been forced open during the fire fighting. He also discovered that Officer [redacted], NHPD, had seen the fire while patrolling on Wilshire and reported it at approximately 6:35 PM Officer [redacted] had responded to the fire and reported that it was "pretty well involved with black smoke coming out of the house". Capt. [redacted], Oklahoma City Fire Department, reported that he had responded to the fire scene and that he made forced entry into the rear of the residence, which explained the one back door which had been broken into. Agent [redacted] interviewed each of the NHPD, VFD, and OCFD firefighters who responded to the scene.

Agent [redacted] conducted over twenty five interviews with contractors and employees who had worked on the [redacted] house and had been inside the residence on the day of the fire. George [redacted], an off-duty Oklahoma City firefighter, had contracted to do the marble work inside the residence and had been the last person in the house on the day of the

TITLE OF INVESTIGATION [redacted]

UNIQUE IDENTIFIER 53247 90 4530 R

DETAILS (Continued)

fire. He advised that he had locked the residence and left at approximately 5:55 PM, and had not noticed anything unusual. He said that the only flammable liquid inside the residence was a 5 gallon can of gasoline he had been using for a piece of his equipment. This can had been stored in the opposite side of the house from where the fire had originated and had been retrieved from the house before the fire had reached that area. He said that he had never experienced any problems collecting money on the job and Agent [redacted] established that none of the workers had ever had problems of that sort. Rick [redacted] and [redacted], both bricklayers on the house, said that they had been smelling gas for the past month and a half, and that during the week of January 15, 1990, they had smelled gas outside of the house near a furnace on the east end. They said they reported it to the supervisor, [redacted], and that someone had come out to the house and taken care of the problem.

Agent [redacted] conducted a neighborhood investigation and was able to determine that a [redacted] Wilshire Dr., had taken photographs of the fire during the early stages. She provided copies of these photographs for examination by the cause and origin investigators.

A local attorney, [redacted], telephoned Agent [redacted] at the command post and advised that her parents and her sister had been by the fire scene at approximately 6:15 PM, on the night of the fire. She said that she was sure of the time since they were coming to her house to pick her up and she lived approximately 3 minutes from the scene and she noticed they arrived at her house at 6:18 PM. Agent [redacted] contacted [redacted], [redacted] sister, and [redacted] father. Both advised that they had been traveling eastbound on Wilshire and were stopped at the traffic signal at Wilshire and Pennsylvania. They said that looked at the residence and commented about it and proceeded slowly through the light in front of the residence, and did not notice anything unusual. Through interviews with witnesses and examining tape recorded fire department and police department radio calls the following time sequence was developed:

5:20 PM - [redacted], interior decorator, and [redacted], wife of the owner, left the residence for the evening.

5:55 PM - [redacted] locked up and left the residence.

6:00 PM - [redacted] sister-in-law to the owner, drove by the residence and noticed nothing unusual.

6:15 PM - [redacted] and parents drove by the residence and noticed nothing unusual.

TITLE OF INVESTIGATION
KUYKENDALL, H.G.

UNIQUE IDENTIFIER
53247 90 4538 E

DETAILS (Continued)

6:28 PM to 6:25 PM – [redacted] and wife drove by the residence and observed black smoke coming from the roof area. They went to the [redacted] residence and reported the smoke.

6:30 PM – [redacted] drove by the residence, westbound, and observed gray smoke in the intersection of Wilshire and Pennsylvania.

6:30 PM to 6:35 PM – [redacted] drove by the residence, eastbound, and observed gray smoke high on the roof in the north central portion of the residence.

6:35 PM – NHPD Officer [redacted] reports on the radio that there was visible smoke and flame coming from the residence.

6:35 PM to 6:36 PM – Three calls are received on the 911 line from [redacted]

6:40 PM – NHPD Officer [redacted] arrives on the scene and reports that the house is pretty well involved with black smoke coming out of the residence.

6:42 PM – Capt. [redacted] NHFD, and VFD, arrive simultaneously at the scene. Capt. Stroud reports visible smoke and request assistance from the Oklahoma City Fire Department.

6:51 PM – Request for Amcare to respond to scene.

6:58 PM – Amcare arrives on scene.

6:58 PM – Oklahoma Natural Gas arrives on scene and turns gas off.

On January 30, 1990, at approximately 5:30 PM, a briefing was held at the Nichols Hills Police Department to discuss the developments of the day. The cause and origin personnel advised that they believed the area of origin to be in the area of one of the five furnaces located in the residence. They pinpointed the furnace located in the east end of the residence and advised that additional examination would be conducted on January 31, 1990.

On January 31, 1990, the interviews and scene investigation continued. During the initial fire fighting efforts fireman reported a subject, who was not a fireman, assisting them with handlines and rendering aid to Capt. [redacted] Agent [redacted] was able to establish the identity of this subject at [redacted], a white male, who fit the description of the unknown helper. [redacted] had injured himself at the scene and was transported to the hospital during a second run by Amcare units. The

TLE OF INVESTIGATION
[redacted]

UNIQUE IDENTIFIER
53267 90 4530 E

ETAILS (Continued)

Nichols Hills City Manager had reported discovering several teenagers inside the house to the east of the fire scene, having a party and watching the fire. This house was vacant as it was being remodeled. Agent [redacted] was able to identify the teenagers and establish that they entered the house after the fire had started and had nothing to do with the initiation of the fire. It was established through interviews with [redacted], the interior decorator, that there were only five keys to the residence. The [redacted] had two, [redacted] had one, [redacted] had one, [redacted] had one, and she had one. Agent [redacted] continued to interview contractors and employees, however no new information was developed. Agent [redacted] continued to interview fire and police personnel, however no new information was developed. [redacted], an off duty Oklahoma City Firefighter, contacted authorities and volunteered that he had taken some video of the fire early on. The video was obtained and revieved by the cause and origin personnel.

The scene investigation continued throughout the day of January 31, 1996, and a final briefing was held at the NSPD at 5:30 PM. Agents from the interview teams briefed others regarding what had been discovered. Agent [redacted] gave a final determination on the fire, with the concurrence of [redacted], and [redacted]. Agent [redacted] advised the area of origin was in the furnace closet on the east side of the house and that the fire traveled up the chase and into the attic area. Agent [redacted] and the others advised that they could not determine the cause of the fire. The theory, concerning Capt. [redacted] death, was that he had obviously gone up the staircase, which did not have any handrails. He proceeded east, down the hallway to a point, then obviously decided to trace his steps back down the stairs. Perhaps to see why his handline was charged, or perhaps he located the fire and it was to hot. The second floor was totally filled with smoke and it is suspected that as he returned down the hall he followed the wall. Next to the staircase on both sides were balconies and neither one had any bannisters installed yet. From the position of the body it appeared that Capt. [redacted] turned right, following the wall, and probably fell off the balcony.

The Nichols Hills Fire Department and City Managers office determined that they would keep security of the scene until they could have an independent expert examine the furnace.

All notes and reports relating to this investigation are in the case file. There was no evidence developed during this investigation which would suggest an arson fire, therefore it is recommended that this investigation is be closed.

[redacted] P.E.
Registered Professional Engineer - Mechanical & Electrical
[redacted] Main Street, Suite [redacted] • Norman, Oklahoma 73069

SUMMARY

During February and March, 1990 this investigator conducted an engineering inquiry into causation of the fire at the [redacted] residence, [redacted] Nichols Hills, Oklahoma on January 29, 1990.

Due to the value of the loss and the death of a member of the Nichols Hills Fire Dept., the investigation attracted the attention of numerous potential civil litigants, their attorneys and technical experts, as well as the news media. Every reasonable effort was made by this investigator and representatives of the City of Nichols Hills to provide these parties access to the evidentiary materials prior to or coincident with destructive disassembly and inspection. The need to provide this level of access delayed the investigative process, but was in the best interests of all parties.

Investigators from the Oklahoma State Fire Marshal (OSFM), the Dept. of the Treasury Bureau of Alcohol, Tobacco and Firearms (ATF), and the Nichols Hills Fire Dept. (NHFD) determined the origin of the fire to be a mechanical closet at the east side of the residence. This closet contained two Lennox Industries, Inc. Series GSR14 natural gas fired forced-air downflow pulse furnaces which exhibited unusually extensive destruction. No probative evidence of arson was found by any of the investigating agencies, and the fire was classified as accidental, of undetermined cause.

A review of events documented by the investigating agencies shows the fire ignited suddenly, with no warning, and expanded through the upper portions of the residence very rapidly. Smoke and visible flames were reported forty minutes after the last occupancy of the structure. Roof penetration occurred shortly after the initial fire discovery. No witness reported an explosion preceding the fire, and there was no physical evidence of forceful disruption of the structure.

My initial inspection of the fire scene and review of information obtained by the investigating agencies supported their conclusion as to the fire origin. The subject furnaces and an undamaged exemplar unit were removed from the fire scene to a storage facility secured by the OSFM and NHFD.

Inspection of other furnaces at the residence revealed the furnace gas piping was not installed in accordance with manufacturer's recommendations. Optional flexible gas connectors intended to isolate the attached piping from furnace acoustic vibration were omitted. Gas pipe unions on undamaged furnaces could be turned by hand.

The furnaces in the residence were used to heat the structure for several months during construction. Return air electrostatic cleaners, conventional filter elements, blower motors and impellers inside the blower compartments of furnaces outside the area of origin contained accumulations of material which appeared to be a mixture of sawdust, overspray of wood finishes, and plaster.

Detailed disassembly and inspection of the furnaces from the area of origin confirmed these appliances had been exposed to sustained temperatures higher than normally encountered in an ordinary structural fire. This evidence of high temperature exposure indicated fuel gas was released into the furnace closet prior to and/or during the fire.

Careful disassembly, testing, radiographic and microscopic examination did not reveal any evidence of internal malfunction of the furnaces or their controls. The field settings of the Primary Fan Control & Limit switches differed from the factory settings and could have resulted in repetitive cycling of the furnace blowers in normal operation.

Residue inside the subject furnaces indicated they contained construction dust accumulations at least as great as those found in other furnaces at the scene.

Examination of the gas supply piping to the subject furnaces revealed inadequate makeup of threaded joints and possible defective pipe fittings. At least one separated joint showed signs of distortion and intense heat.

The only available fuels identified in the furnace closet were fuel gas and the combustible dust accumulations inside the furnaces. The only identified ignition sources were the furnaces and their controls.

The design of the Lennox Series GSR14 Pulse furnace is such that an external air-fuel mixture drawn into the unit and ignited will not normally be able to flash back to the fuel source. The furnace draws its combustion air from outside the dwelling, away from any interior source of leaking fuel gas. There is no standing pilot flame in this furnace. The air-fuel mixture is ignited inside the sealed combustion chamber by an internal electrical spark plug. Flue gas outlet temperature is below the ignition temperature of all common combustibles, including natural gas.

Accumulated fuel gas inside the furnace closet could be ignited by operation of the furnace blower control switches and relays or by the igniter circuit of the furnace if there were an electrical insulation breakdown in the igniter high voltage wiring.

Ignition of an accumulation of natural gas in the middle to lower flammable mixture range inside the furnace closet would be expected to produce a forceful deflagration which would blow open the closet doors and possibly blow access panels off the furnace. There is no evidence of this type of explosion. Ignition of an accumulation of natural gas near the upper limit of the flammable mixture range, or gas which has migrated to an unconfined space might not produce a forceful deflagration.

When furnace airflow is reduced by clogged filters, the interior heat exchanger surfaces will operate at higher than normal temperatures. The furnace blower motor will also run hotter. If the blower motor thermal protector functions while the burner is operating, air circulation ceases. The temperature of the condenser coil tubing rises rapidly until the burner is shut off, and slowly for a short time thereafter.

If the blower stops while the burner is operating, the burner will not shut off until either the Primary or Secondary Limit switch functions. Since this is a downflow furnace, the Primary Limit switch at the bottom of the furnace may not sense the rising temperature for some time. The Secondary Limit switch on the blower scroll will not function until air temperature reaches 160 degF inside the blower scroll.

Combustible dust inside the furnace could be ignited if the temperature of surfaces on which dust has accumulated reaches 450 to 500 degF. The time observed for ignition and expansion of the fire is consistent with ignition in this manner, assuming comparable dust accumulations in the return air ducts, and some accumulation of fuel gas inside duct passages.

From Lennox manuals, normal operating temperatures are 350 degF at the Condenser Coil intake manifold, 600 degF at the Decoupler outlet, and 1000 to 1200 degF at the Combustion Chamber and Tailpipe. I have found no test data which defines the temperature on the furnace condensing coil tubing under the abnormal conditions described above. Mr. William Hooker, independent fire investigator retained by the homeowner, is considering a furnace operating test to evaluate this sequence of events.

CONCLUSIONS

In my opinion, this fire originated in the mechanical closet at the east side of the residence and rapidly spread to the attic and the first floor ceiling along return air duct passages. Gas released into the furnace closet prior to and/or during the fire contributed to the intensity and rapid spread of the fire.

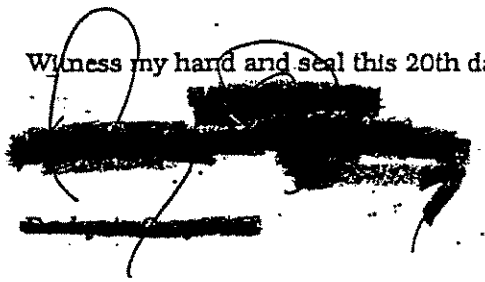
I believe this fire most probably resulted from ignition of combustible dust accumulations inside furnace F5 at the north side of the furnace closet. Clogged furnace filters reduced airflow through the unit, causing the blower motor and furnace to operate at higher than normal temperatures. Field settings of the Primary Fan Control switch caused the blower motor to cycle excessively.

The combination of reduced airflow, increased operating temperatures and excessive cycling caused the blower motor thermal protector to function while the burner was operating. The resulting temperature excursion allowed surfaces covered with combustible dust to reach 450 to 500 degF, igniting the accumulated material. The ignition resulted from the abnormal dust accumulation, and was not the result of any inherent defect or failure of the furnace.

The rapidity of expansion of the fire, evidence of intense heat damage to the furnaces, defects in the gas supply pipe fittings and connections, and the absence of flexible gas supply connections at the furnace suggest the possibility of a gas leak or a gas pipe failure as an alternative cause of this fire.

While conditions in the gas piping undoubtedly contributed to the intensity and rapid expansion of the fire, the absence of any evidence of explosive disruption of the furnace closet, furnaces or the structure leads me to conclude this fire was not initially the result of ignition of an accumulation of natural gas.

Witness my hand and seal this 20th day of March, 1990.



DETAILS

The results and conclusions described in this report are based on the following materials, activities and observations.

Summary of Activities

2/2/90 Travel to Nichols Hills Fire Department; Meet w/Chief [redacted] Travel to fire scene; Examine and photograph furnaces F4 and F5 in place; Examine and photograph general fire scene; Discuss removal and securing of subject furnaces and exemplar unit; Return to Fire Department, identify materials to be available for review (ATF photos and report, videotapes, building plans); Return to Norman.

2/3/90 Return to fire scene; Observe removal of subject furnaces and exemplar furnace from fire scene; Obtain building plans for reproduction; Review videotapes from television stations, fireman at scene; Return to Norman.

2/6/90 Travel to Nichols Hills Fire Department; Disassembly postponed by court order; Meet w/Chief [redacted] and [redacted] of [redacted] Engineering (independent fire investigator retained by the Owner) to discuss rescheduling of inspection; Obtain negatives of ATF photos for reproduction; Review videotapes of fire; Return to Norman.

2/6/90 thru 2/9/90 Coordinate efforts to schedule disassembly and inspection of furnaces with representatives of Owner, Contractors and Manufacturers of equipment.

2/9/90 Travel to Oklahoma State Fire Marshal storage building; Relocate furnaces to adjacent room to be secured by Nichols Hills Fire Department; Disassemble, inspect and photograph subject furnaces in the presence of representatives of Owner, Contractors and Manufacturers; Return to Norman.

2/10/90 Travel to [redacted] Engineering offices; Meet w/[redacted] to discuss findings and future efforts; Travel to offices of [redacted], Attorneys (representing Lennox Industries, Inc.) to request engineering and test data for furnaces; Return to Norman.

2/12/90 Obtain copies of building plans from reproduction service.

2/21/90 Travel to furnace storage room; Relocate selected furnace components to [redacted] Engineering offices; Joined by representatives of construction contractors and manufacturers; Identify, radiograph, disassemble and inspect Auxiliary Fan Switches and Manual Reset Fan Limit Switches; Disassemble furnace blowers and housings; Inspect interior of housings and contents, including wire remnants; Locate, remove, identify and radiograph blower motor thermal overload protective devices; Return to Norman.

2/28/90 Travel to [redacted] Engineering offices; Meet w/[redacted] to discuss findings; Pick up copies of ATF photographs; Partially disassemble and inspect exemplar furnaces and blowers in possession of Owner; Contact Chief [redacted] Travel to furnace storage room; Meet w/Chief [redacted] and [redacted]; Remove, inspect and photograph Primary Fan Control & Limit switches from furnaces F4 and F5; Release all materials to Owner; Return to Norman.

3/6/90 Travel to offices of [redacted]; Obtain copies of Lennox Industries technical data and certification test reports on subject furnace; Return to Norman.

3/6/90 thru 3/9/90 Review Lennox Industries technical data on subject furnaces.

3/10/90 Complete review of architectural construction drawings of the home.

3/15/90 thru 3/19/90 Preparation of report.

Materials Reviewed

Dept. of the Treasury - Bureau of Alcohol, Tobacco and Firearms Investigation Report, including:
- Oklahoma State Fire Marshal's Report
- Nichols Hills Fire Run Report
- State of Oklahoma Fire Incident Report
- Oklahoma City Fire Dept. Basic Incident Report

Photographs
- ATF
- NHPD

Videotapes
- Television channels 4,5 and 9
- OCFD
- Off-duty OKC fireman Jim Conner

Architectural drawings - [redacted] residence
Mechanical HVAC plans - [redacted] residence

Lennox Industries Documentation
- Engineering Data, GSR14 Series Pulse gas furnaces
- Installation, Operation and Service Instructions, GSR14 Series Units
- Unit Information - Service - GSR14
- Engineering Specifications
  - Combination Gas Valve
  - Control- Fan & Limit
  - Controller
  - Control - Fan Auxiliary
  - Control - Limit, Manual Reset
  - Motor
  - Capacitor

Manufacturer's Literature
- Klixon 7AM Thermal Protectors
- Thermodisc 60T Series Bimetal Disc Temperature Controls

American Gas Association Certification Test Reports - Lennox GSR14 Series Furnaces

Investigations by Others

Alcohol, Tobacco and Firearms (ATF) investigators found the following:

Construction on the home began in 1987, had been in progress over 18 months.

Workmen were in the dwelling until 5:55 pm the day of the fire. Occupants that day included the interior decorator and the marble and tile contractor. The marble and tile contractor left at 5:55 pm, locking the house.

At 6:00 and 6:15 passersby saw nothing unusual at the home.

The first confirmed sighting of smoke was at 6:20 to 6:25 pm, by a passing motorist and his wife who saw black smoke coming from the roof area. Later witnesses also observed only smoke until 6:35 pm, when NHPD Officer [redacted] reported smoke and visible flame coming from the residence.

The alarm was received at the Nichols Hills Fire Department (NHFD) at 6:35 pm. The first NHFD units arrived at the scene at 6:42 pm. Units of the Village Fire Department arrived simultaneously. Units of the Oklahoma City Fire Department arrived at 6:51. Gas supply was reported shut off by Oklahoma Natural Gas Co. personnel at 6:58 pm.

The fire was extinguished at 1:11 am on 1/30/90 and the scene was secured. NHFD, Oklahoma State Fire Marshal (OSFM) and ATF personnel began fire scene investigation and debris excavation on 1/30/90. ATF and OSFM concluded their investigations 1/31/90.

OSFM and ATF investigators did not find probative evidence of arson. Their investigation indicated the origin of the fire was a mechanical closet at the east wall of the building. This closet contained two gas-fired, forced-air downflow furnaces which showed evidence of intense heat and mechanical distortion.

Initial Scene Inspection

This investigator was contacted by the NHFD Chief [redacted] on 2/2/90, and immediately went to the fire scene. Arrangements were made to remove and store the subject furnaces (identified as F4 andF5) and one undamaged exemplar furnace (identified as F1A) the following day. On 2/3/90 a more detailed inspection of the scene and the subject furnaces was conducted prior to their removal. Initial inspection of the fire scene showed the following:

The interior of the fire scene had been overhauled and most of the debris had been removed from the breakfast room, kitchen and family room, exposing the floor coverings and concrete slab in these areas.

Exterior electrical power wiring to the furnaces had been removed with other debris, and was not available for inspection.

Gas supply piping to the furnaces was broken and disarranged, with portions still attached to the furnaces, and other portions separate on the floor of the building. Interior gas piping away from the furnace closet was missing, apparently removed with the other debris.

Gas supply piping at furnaces F4 and F5 showed evidence of intense heat, distortion and fracture in the fire. At least one of the separated pipe joints to these furnaces appeared to have vented gas into the fire.

Flexible gas supply connectors recommended by the furnace manufacturer were not present on any of the furnaces in the home. On undamaged furnaces not in the fire zone, piping unions could be rotated easily by hand.

Interior plastic combustion air supply, vent and drain piping to furnaces F4 and F5 was missing, apparently consumed in the fire. The exterior vent terminations remained in the debris, but it was not possible to relate these parts to a specific furnace.

Mechanical distortion of galvanized steel return air plenums and the steel furnace housings indicate considerable force was applied downward on the ductwork and furnaces. When this force was applied the ductwork buckled and collapsed completely while the furnace housings bent forward. This suggests the furnaces had not been heated sufficiently to anneal the steel housings when the closet ceiling collapsed.

Oxidation patterns on the furnace housings indicate intense heat from the lower front, between the air conditioner evaporator coil housings and the steel exterior doors of the mechanical closet. Gray oxide scale on the return air plenums and furnace sides indicates prolonged exposure to intense heat in a depleted oxygen atmosphere above the midpoint of the furnaces. There was less indication of intense heat at lower levels on the sides and rear of the furnaces.

Localized destruction of the interior surface of the steel closet doors directly in front of the air conditioner evaporator coil housings indicated prolonged, intense localized heat between the coil housings and the steel doors.

Evaporator coils were not connected to refrigerant piping and had not been charged with refrigerant. Refrigerant piping to the condenser unit locations was in place, but condensing units were not on site.

There was no sill plate or threshold under the steel closet doors at the time of the fire.

The steel closet doors remained relatively straight, vertical and securely attached to the hinges. There was no extreme mechanical distortion of these doors or the supporting frame. Photos and videotape confirm these doors remained closed throughout the fire.

Foil-backed foam insulating board above the lintel of the closet doors was intact and unmelted.

The heat and soot pattern on the glazed brick around the closet doors did not indicate venting of fire from these doors. Photos and videotape confirm there was no major venting of flame from these doors during the fire.

On removal of the furnaces from the supply air openings in the concrete floor slab, the insulating board under furnace F5 was visibly more severely damaged than the similar board under furnace F4.

Inspection of the interior of other furnaces in the fire scene revealed accumulations of combustible deposits in the electrostatic air cleaners, filters, blower compartments, blower scrolls, impellers and motor housings of these units.

Comparison of furnaces F4 and F5 with nearby furnace F3 confirms anomalous destruction in these two units, supporting the conclusion of fire origin in the closet containing these furnaces.

Remains of perforated metal grids around and inside the furnace housings indicate disposable furnace air filters were substituted for the washable filters provided by the furnace

manufacturer. One of the original manufacturer's filters was found undamaged on a scaffold near the furnace closet.

Inspection and Disassembly of Furnaces

After some difficulty scheduling and coordinating with other interested parties, the furnaces were relocated to a storage building secured by the Oklahoma State Fire Marshal. On 2/6/90 Chief Wells and I met at his office with Mr. [redacted], an independent fire investigator retained by the Owner, to agree on a schedule for disassembly and inspection of the furnaces.

On 2/9/90 Mr. [redacted], Chief [redacted] and myself met at the storage site to disassemble the furnaces. Representatives of various manufacturers and construction contractors were present, including their attorneys, technical experts and investigators. Both furnaces were inspected and disassembled. During this initial disassembly of the furnaces, the following was noted:

Both furnaces showed evidence of higher temperatures at the upper portions of the ductwork and furnace housings than at lower levels. Furnace F5 showed greater damage and more total destruction of internal components than F4.

Aluminum parts of the electrostatic air filters mounted at the top of both furnaces were melted and destroyed, but those in F5 were more totally consumed than those in F4.

The aluminum alloy end caps of the blower motors were more completely melted in F5 than in F4.

Remains of the electrical wiring to the electrostatic air filters indicated these units had not been connected to the auxiliary device control terminals inside the furnace, and thus were inoperative at the time of the fire.

Aluminum fins on the condensing coils of the pulse furnaces were melted, and brazed joints in the condenser tubing had separated in both furnaces. The pattern of damage in F5 was noticeably different from F4.

In F5 the aluminum condenser coil fins were almost completely destroyed from heat above the coil, and the brazed or silver-soldered condenser tubing joints were separated at the coil end, while in F4 the condenser fins were more intact, and the tubing joints had separated at the manifold end nearer the front of the furnace.

In both furnaces condenser tubing separation occurred when the furnaces were buckled downward, forcing the housing against the condenser manifold. This occurred after tubing joints had been heated to the melting point of the brazing material.

The gas control valves in both furnaces were completely melted. In F5, there were remnants of charred wood imbedded in the underside of the puddled metal of the gas valve, indicating the valve melted with the lower front panel separated from the furnace, after collapse of burning material into the closet. The appearance of the furnace surfaces above and adjacent to the melted valves shows there was no gas release from the valves during the fire.

The air flapper valves of both furnaces were melted in a manner that indicated heat penetration from outside the furnaces at the front. These valves are located inside heavy-gauge steel boxes with 1" thick glass fiber interior insulation. The insulation in both furnaces showed signs of decomposition in contact with the exterior jacket.

The purge air blowers of both furnaces were completely melted, and showed signs of melted and beaded brass and copper on the motor laminations.

The interior aluminum sheet lining at the bottom of the furnace compartment of F5 was melted completely away, while the lining in F4 was intact.

There was no evidence of internal overheating of either furnace in the form of unusually discolored, distorted or cracked combustion chamber, heat exchanger or decoupler surfaces or weld connections.

Control wiring and components in both furnaces were oxidized, embrittled, broken and disarranged to a degree which prevented reconstruction of the control system. Electronic circuit boards were completely consumed, and those components not consumed had fallen into the debris inside the furnace. Inspection of the various components remaining did not reveal any evidence of electrical malfunction, arcing, melting, beading or fusing of conductors.

Air conditioning evaporator coils below the furnaces showed signs of intense heat on the exterior housings facing the closet doors. There was remarkably little destruction of the aluminum fins and brazed tubing joints inside the evaporator coil housings.

The overall condition of the evaporator coils indicates the fire remained higher in the furnace closet, except for collapsing material which fell between the furnaces and the closet doors. This collapsed debris burned with intense heat due to the ventilation from the open threshold space below the closet doors.

Inspection of Internal Components

During the initial disassembly and inspection, certain items were identified and preserved for more critical inspection, testing or radiography. On 2/21/90 Mr. [redacted] and I, accompanied by Chief [redacted] returned to the storage room and collected the blower assemblies, auxiliary fan control switches, secondary limit switches and gas supply piping. These items were taken to [redacted] Engineering facilities in Oklahoma City.

In the presence of representatives of various manufacturers and construction contractors Mr. [redacted] and I disassembled the blower units, removed the motors from the squirrel cage impellers, located and removed the thermal overload protective devices from the motors. We also removed the auxiliary fan control and secondary limit switches from furnace F5 blower housing. All switches and thermal overload devices were checked for electrical continuity and radiographed. The switches were then disassembled for visual inspection. Gas supply piping was visually inspected, and preserved to be radiographed at a later date.

The following conditions were noted at this inspection:

The Auxiliary Fan Control switch contacts of both furnaces were closed, with the stationary contact melted from the heat of the fire. Since these switches close on rising temperature, the closed contact would be expected in a fire.

The Secondary Limit switch contacts of both furnaces showed electrical continuity, but radiographs and visual inspection showed this to be the result of melting of the stationary contacts. Inspection of the remaining contacts showed no evidence of pitting or welding which might suggest malfunction of the protective devices.

The plastic resin binder material in the molded housings of these switches was partially baked away, leaving the filler material in a brittle condition. The bimetal disc

operators of the switches had separated as a result of the partial destruction of the switch housings.

The blower motor windings were intact, with no evidence of melting or fusing of the winding conductors. The windings had a uniform baked appearance, with no unusual oxidation of the copper conductors. Probing of the windings indicated decreasing heat penetration from the surface to the interior of the windings.

The motor rotors were relatively intact, with no evidence of internal overheating or melting of the cast metal body.

The interior motor end caps were slightly more intact than the exterior end caps, in furnace F4.

The motor thermal protector contacts showed electrical continuity, but radiography showed this to be the result of melted contacts as in the case of the Fan Control and Secondary Limit switches.

There was a cohesive powdery residue on the surface of the blower impellers, motor housing, and blower scroll.

There were numerous segments of stranded copper conductor inside the blower scroll of furnace F5. One of these segments showed localized beading and fusing of the copper strands typical of damage produced by electrical shorting. This was the only affirmative evidence found that either furnace was energized at the time of the fire. The conductor segment could not be related to a specific circuit or device inside the furnace.

Visual inspection of the gas supply piping showed several joints were misaligned and not engaged to the proper depth. Overall appearance suggested most joints were engaged three threads or less. Misalignment of the pipe with the elbows further suggested improperly assembled or defective pipe fittings. Markings on the pipe and fittings identified their origins as Mexico, China and Thailand.

Final Inspection

On 2/28/90 [redacted] and I met at [redacted] Engineering offices to review our findings. We partially disassembled and inspected two of the blower assemblies from other furnaces in the residence. We then contacted Chief [redacted] at the NHFD, and arranged to meet him at the storage building to transfer custody of the remaining materials to Mr. Hooker.

I met Chief [redacted] at the storage facility, where I photographed, removed and marked the Primary Fan Control & Limit switches from both furnaces. Chief [redacted] then transferred custody of all materials to Mr. [redacted], who removed the materials to his offices.

I noted the settings of the Primary Fan Control & Limit switch cams of furnace F4 and F5. The "OFF" cams of the Fan Control contacts appeared to be set at 100 degF, the "ON" cams at 110 degF, and the "LIMIT" cams at 170 degF. The "OFF" cam is factory set at 90 degF, but is field adjustable. These settings could cause repetitive cycling of the furnace blowers during otherwise normal operation, increasing the probability of actuation of the motor thermal protectors.

Review of Available Data

In my first meetings with Chief [redacted] I was shown copies of fire scene photographs made by the NHPD and ATF Investigators. I was also shown copies of architectural drawings filed with the City of Nichols Hills in connection with application for building permits and city inspections. I subsequently obtained copies of the ATF photographs and the architectural drawings for my own use.

I also obtained copies of the building mechanical HVAC plans from Mr. [redacted]. I was told the actual construction of the air distribution ducting varied slightly from the drawings, but was unable to determine the exact nature of the variances.

When the ATF Investigation Report was released to the NHFD, Chief [redacted] provided me a copy of this document.

Mr. [redacted], attorneys for Lennox Industries, Inc., provided copies of Lennox Installation, Operation and Service Instructions, Unit Information (Theory of Operation), and Engineering Data on the Lennox GSR14 Series Pulse furnaces, as well as engineering specifications on the various control components and switches of the unit. Mr. Elder identified the F5 furnace as a Lennox Industries GSR14Q4/5-80, 80,000 btu per hour furnace. Mr. [redacted] also furnished copies of the American Gas Association (AGA) Certification Test Reports for the subject unit.

Despite repeated inquiries, I was unable to obtain transcriptions of interviews with the numerous witnesses mentioned in the ATF report. Chief [redacted] was told the ATF files contained only agent field notes, not transcriptions. Representatives of potential civil litigants were reluctant to release their independent interviews, since this could void any future claim of attorney work product privilege regarding these documents.

In the interests of time and economy of effort, I have based my report on the information referenced herein. I have not heard or seen records of any conversations which contradict the information presented, but I have reason to believe there is a body of information obtained from various individuals connected with construction of the home which was not available to me. This information could provide additional insight into conditions preceding the fire which relate to the fire causation.

ATTACHMENT 3

900423CCC3377

STATE OF OKLAHOMA - DEPARTMENT OF HEALTH

AMENDMENT TO CERTIFICATE OF DEATH

Certificate of Death of [redacted]

Date of Death Jan 29, 1990 Place of Death Okla City, Okla.

State File No. 90-1746

ITEMS TO BE AMENDED

Item	Entry before amendment	Entry after amendment
Items #20a,20b,20c,20d, 20e,20f,20g	See Original Certificate	See below

MEDICAL CERTIFICATION

PART I DEATH WAS CAUSED BY (Enter only one cause per line for (a), (b), and (c).) — Approximate Interval Between Onset and Death

18. CAUSE OF DEATH — IMMEDIATE CAUSE (a) HEAD TRAUMA

Conditions, if any, which gave rise to immediate cause(s) stating the underlying cause last — DUE TO OR AS A CONSEQUENCE OF (b)

DUE TO OR AS A CONSEQUENCE OF (c)

9000193

PART II. OTHER SIGNIFICANT CONDITIONS (Conditions contributing to death but not related to cause given in part I (a).) — AUTOPSY 19a. Yes [X] No [ ] — AUTOPSY AUTHORIZED BY: 19b MEDICAL EXAMINER

Manner: Natural [ ] Pending [ ] Accident [ ] Suicide [ ] Homicide [ ] Unknown [ ]

20a. DATE OF INJURY (Month, Day, Year) 1-29-90 — 20b. HOUR OF INJURY CA. 1851 H. — 20c. HOW INJURY OCCURRED (Enter nature of injury in Part I or Part II, Item 18) HOUSE FIRE

20d. INJURY AT WORK Yes [X] No [ ] — 20e. PLACE OF INJURY At Home, Farm, Street, Factory, Office Bldg., Etc. (Specify) [redacted] WILSHIRE — 20f. LOCATION OF INJURY (Street or R.F.D. No., City or Town, State) NICHOLS HILLS, OKLAHOMA

CERTIFICATION - MEDICAL EXAMINER On the basis of my examination of the body and/or the circumstances, to my opinion, death occurred on the date and due to the cause(s) stated or entered by my signature on items 22b. 21a. — I did/did not view body 21b. DID — DEATH OCCURRED at 1930 H. at the place, on the date stated, and to the best 21c. of my knowledge, due to the cause(s) stated.

CERTIFIER - NAME (Type or Print) 22a. FRED B. JORDAN, M.D. — SIGNATURE OF MEDICAL EXAMINER 22b. Fred B Jordan — DATE SIGNED (Month, Day, Year) 22c. 2-14-90

MAILING ADDRESS - CERTIFIER 22d. 901 N. STONEWALL, OKLAHOMA CITY, OKLAHOMA 73117
(Street or R.F.D. No. — City or Town — State — Zip)

Amendment Requested by Fred B. Jordan, M.D. Related to Registrant as Chief State Medical Examiner

CERTIFICATION BY STATE REGISTRAR: I hereby certify that I have examined the documents referred to above, that the abstract is true and correct, that the documents show no changes or erasures, and appear to be authentic.

State Registrar Roger C. Pirrong

File Date FEB 23 1990

(V.S. 127 3-70)

State Department of Health
State of Oklahoma
OKLAHOMA CITY, OKLAHOMA 73152

ROGER C. PIRRONG
STATE REGISTRAR OF VITAL STATISTICS

CERTIFIED COPY MUST HAVE EMBOSSED SEAL

Roger C. Pirrong
STATE REGISTRAR

I hereby certify the foregoing to be a true and correct copy, original of which is on file in this office. In testimony whereof, I have hereunto subscribed my name and caused the official seal to be affixed, at Oklahoma City, Oklahoma, this date.

SEPT 12 1990

MEDICAL EXAMINER

CERTIFICATE OF DEATH

STATE OF OKLAHOMA – DEPARTMENT OF HEALTH

AMENDED

LOCAL REGISTRAR'S FILE NO. FEB 2 3 1990

STATE FILE NO. 01746

1. DECEASED – NAME: [redacted]
2. DATE OF DEATH (Month, Day, Year): 1-29-90
3. SEX: MALE
4. RACE – White, Negro, American Indian, Etc. (Specify): WHITE
5. AGE – Last Birthday (Years): 40
5a. UNDER 1 YEAR – Months / Days
5b. UNDER 1 DAY – Hours / Min.
6. DATE OF BIRTH (Month, Day, Year): AUG. 24, 1949
7. COUNTY OF DEATH: OKLAHOMA
8. CITY, TOWN, OR LOCATION OF DEATH: OKLAHOMA CITY
9. INSIDE CITY LIMITS: Yes X No
10. HOSPITAL OR OTHER INSTITUTION – NAME (If not in either, give Street and Number): BAPTIST MEDICAL CENTER
11. STATE OF BIRTH (If not in U.S.A., Name Country): OKLAHOMA
12. CITIZEN OF WHAT COUNTRY: USA
13. MARITAL STATUS: MARRIED
14. SURVIVING SPOUSE (If Wife, Give Maiden Name): [redacted]
15. SOCIAL SECURITY NUMBER: 441-52-2915
16. USUAL OCCUPATION (Give kind of work done during most of working life): CAPT. Nichols Hills Fire Dept.
17. KIND OF BUSINESS OR INDUSTRY: CITY OF NICHOLS HILLS
18. RESIDENCE – STATE: OKLAHOMA
18a. COUNTY: OKLA.
18b. CITY, TOWN, OR LOCATION: OKLAHOMA CITY
18c. INSIDE CITY LIMITS: Yes YES No
18d. STREET AND NUMBER: [redacted] CANYON RD.
18e. ZIP CODE: 73162
19. FATHER – NAME: [redacted]
20. MOTHER – MAIDEN NAME: [redacted]
21. INFORMANT – NAME OR SOURCE OF INFORMATION: [redacted]
22. MAILING ADDRESS (Street or R.F.D. No., City or Town, State, Zip): [redacted] CANYON ROAD, OKLA. CITY, OK 73162

MEDICAL CERTIFICATION

PART I. DEATH WAS CAUSED BY: (Enter only one cause per line for (a), (b), and (c).)

Approximate Interval Between Onset and Death

23. CAUSE OF DEATH
Conditions, if any, which gave rise to immediate cause (a), stating the underlying cause last.
IMMEDIATE CAUSE (a) HEAD TRAUMA
DUE TO OR AS A CONSEQUENCE OF (b) 1
DUE TO OR AS A CONSEQUENCE OF (c)

9000193

PART II. OTHER SIGNIFICANT CONDITIONS: (Conditions contributing to death but not related to cause given in Part I (a).)

24. AUTOPSY: Yes XX No
25. AUTOPSY AUTHORIZED BY: Medical Examiner
26. Manner: Natural / Accident / Suicide / Homicide / Undetermined – PENDING
27. DATE OF INJURY (Month, Day, Year): 1-29-90
28. HOUR OF INJURY: 1851
29. HOW INJURY OCCURRED (Enter nature of injury in Part I or Part II, Item 18): injured in a fire: origin to be further investigated.
30. INJURY AT WORK: Yes XX No
31. PLACE OF INJURY – At Home, Farm, Street, Factory, Office Bldg., Etc. (Specify): DWELLING
32. LOCATION OF INJURY (Street or R.F.D. No., City or Town, State): [redacted] WILSHIRE, NICHOLS HILL, OKLA.

33. CERTIFICATION – MEDICAL EXAMINER: On the basis of my examination of the body and/or the investigation, in my opinion, death occurred on the date and due to the cause(s) stated as certified by my signature at item 33b.
33a. I did/did not view body after death: DID
33b. DEATH OCCURRED at 1930 hrs., on the place, on the date stated, and to the best of my knowledge, due to the cause(s) stated.
34. CERTIFIER – NAME (Type or Print): FRED B. JORDAN, M.D.
35. SIGNATURE OF MEDICAL EXAMINER: Fred B Jordan
36. DATE SIGNED (Month, Day, Year): 2-30-90
37. MAILING ADDRESS – CERTIFIER (Street or R.F.D. No., City or Town, State, Zip): 901 N. STONEWALL OKLAHOMA CITY OKLAHOMA 73110
38. BURIAL, CREMATION, REMOVAL (Specify): BURIAL
39. DATE (Month, Day, Year): FEBRUARY 2, 1990
40. CEMETERY OR CREMATORY – NAME: RESURRECTION CEMETERY
41. LOCATION (Cemetery or Crematory): CITY, OK.
42. FUNERAL HOME – NAME AND ADDRESS (Street or R.F.D. No., City or Town, State, Zip): GUARDIAN NORTH FH, OKC, OK 73120
43. FUNERAL DIRECTOR: MICHAEL K. SHALZ
44. LOCAL REGISTRAR SIGNATURE
45. DATE RECD. BY LOCAL REG.: FEB 7 1990
46. DATE RECEIVED BY STATE REG.: FEB 7 1990

(75)

State Department of Health

State of Oklahoma

OKLAHOMA CITY, OKLAHOMA 73152

ROGER C. PIRRONG
STATE REGISTRAR OF VITAL STATISTICS

CERTIFIED COPY MUST HAVE EMBOSSED SEAL

STATE REGISTRAR

I hereby certify the foregoing to be a true and correct copy, original of which is on file in this office. In testimony whereof, I have hereunto subscribed my name and caused the official seal to be affixed, at Oklahoma City, Oklahoma, this date.

SEPT 12 1990

900423CCC3377
0310

3

LENNOX Industries Inc.

CORPORATE OFFICES

HEATING AND AIR CONDITIONING
ESTABLISHED 1895

Richard E. Guthrie
Direct No.: 214-497-5196

P.O. BOX 799900
DALLAS, TEXAS 75379-9900
PHONE: 214-497-5000
FAX: 214-497-5299

RECEIVED
JAN 25 P2:09

January 21, 1991

Mr. Joel I. Friedman, Director
National Inquiry Information Clearinghouse
U. S. Consumer Product Safety Commission
Washington, D.C. 20207

Re: CPSC File No. 900423CCC3377

Dear Mr. Friedman:

This is to both acknowledge receipt of and respond to your letter of January 8, 1991, addressed to Mr. John W. Norris, Jr. and bearing the referenced identification number. As a preliminary, please note that our mailing address has changed. All future communications should be addressed to Lennox International Inc., P. O. Box 799900, Dallas, Texas 75379-9900. We would appreciate your making this change on the Commission's records as it would expedite any future correspondence.

Lennox appreciates the Commission's policy of sharing complaints and investigation reports connected in any way with our products. We are aware of and in full compliance with our responsibilities under Section 15 of the Consumer Product Safety Act [15 USC § 2064(b)].

The file accompanying your letter involves a January 29, 1990 fire at a home under construction by H. G. Kuykendall in Nichols Hills, Oklahoma, where a captain of the local fire department died tragically while fighting the fire. Several furnaces of our manufacture were installed in the building.

Lennox commenced a thorough investigation very shortly after the fire. That investigation resulted in our conclusion that no causal relationship existed between the fire or the fire officer's death and either the design or manufacture of our products or their operation. Consequently, our conclusion is that no information available to us to date reasonably supports a conclusion that our products involved constitute a substantial product hazard under the Consumer Product Safety Act. Statements quoted from the independent professional engineer's report, in the second and third paragraphs of the first page of the CPSC investigative report, which state "Examination of the gas supply piping to the subject furnaces revealed inadequate makeup of threaded joints and possible defective pipe fittings.", and "the fire . . . was not the result of any inherent defect or failure of the furnace", appear to support our conclusion.

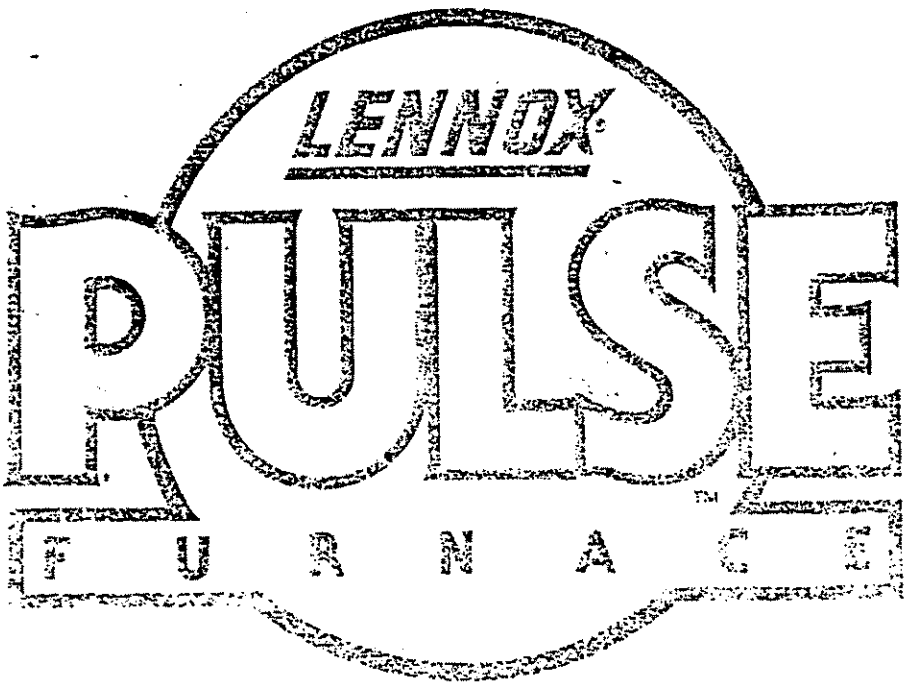
Should we subsequently be provided any information which causes us to revisit our Section 15 obligations, we will of course fulfill them.

Sincerely,

Richard E. Guthrie
Corporate Counsel

REG/ccs

ATTACHMENT 4
900423CCC3377



FOR YOUR SAFETY

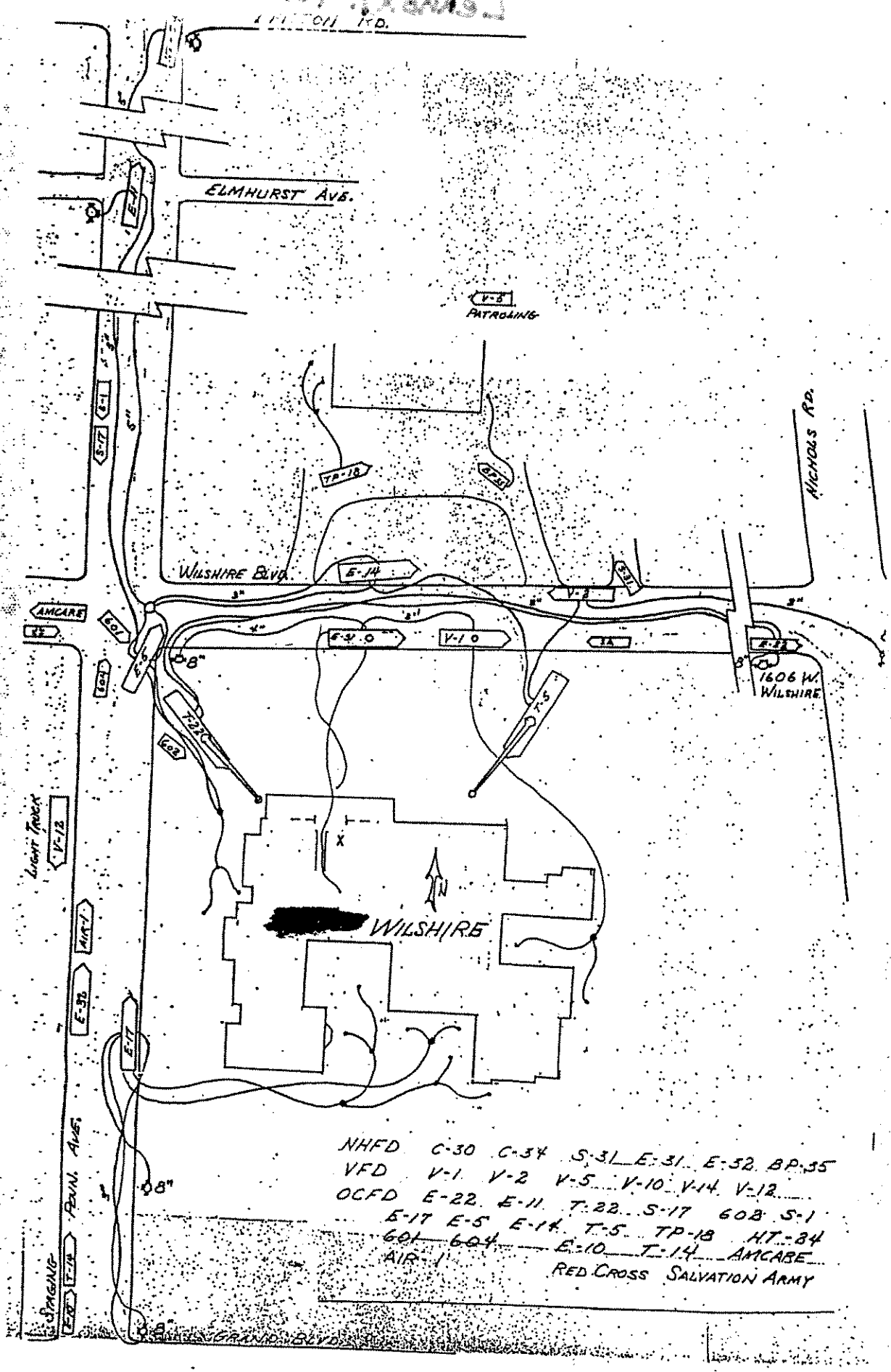
Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

FOR YOUR SAFETY

If you smell gas:

1. Open windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. Immediately call your gas supplier.

WARNING - Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified serviceman, service agency or gas supplier.


ELMHURST AVE.
V-5 PATROLLING
NICHOLS RD.
WILSHIRE BLVD.
E-14
AMCARE
E-10
T-5
1606 W. WILSHIRE
T-22
LIGHT TRUCK
V-12
WILSHIRE
N
PENN. AVE.
E-35
E-17
STAGING
E-14
GRAND BLVD.
8"
NHFD C-30 C-34 S-31 E-31 E-32 BP-35
VFD V-1 V-2 V-5 V-10 V-14 V-12
OCFD E-22 E-11 T-22 S-17 608 S-1
E-17 E-5 E-14 T-5 TP-18 H.T.-84
601 604 E-10 T-14 AMCARE
AIR-1
RED CROSS SALVATION ARMY