

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

WESTERN KENTUCKY GAS	)	
_____	)	
	)	CASE NO. 97-289
ALLEGED VIOLATIONS OF 807 KAR	)	
5:022	)	

O R D E R

On March 4, 1997, an explosion and fire occurred at 511 Smith Street in Danville Kentucky, resulting in personal injury and the hospitalization of five individuals. Western Kentucky Gas ("Western"), a division of Atmos Energy, is the local distribution company providing gas service in the area where the incident occurred. Western notified the Commission's Chief Safety Engineer of the incident at 9:55 p.m. on March 4, 1997.

A Commission investigator visited the site on March 5, 1997 accompanied by Western personnel. The findings of that investigation are contained in the report attached hereto as Appendix A to this Order. In the course of the investigation, interviews were conducted with Western personnel and one of the victims. Commission Staff was assisted at the scene of the incident by State Fire Marshal and Danville Fire Department representatives.

According to the report, both the victims and neighbors recall smelling natural gas on the day of the incident. The tenant at 511 Smith Street had initially contacted Western on March 3, 1997 regarding problems with the pilot light on her natural gas furnace. Western dispatched a service technician to the residence who shut off the gas valves to

the furnace and the water heater. All appliances were then shut off and the service technician conducted a shut in test for five minutes at the meter to verify that no gas was passing through the meter. The tenant was then instructed to contact a plumber to service the water heater control valve and the gas furnace.

Western personnel returned to the premises at approximately 2:30 p.m. on March 4, 1997 to turn the gas back on. A Texas Instrument 8800 T.I.F. gas detector was used to confirm that the newly installed control valve on the water heater was not leaking. Attempts were made to relight the gas furnace; however, the pilot would not light and burn properly. The service technician turned the gas valve to the furnace to the off position and stated he did not smell any natural gas in or around the area. The tenant was instructed to leave the gas off until a plumber was called to clean the pilot feed line. The service technician stated that he checked to see that all valves were closed with the exception of the water heater which was left open to provide hot water. The service technician stated that he did not "trace out" a gas line which went upstairs from the water heater service line since he had previously verified that the valve on the line was left in the closed position.

Commission Staff and a State Fire Marshal's representative traced the gas piping in the premises from point of entry in the basement on the east wall to various points of use in the premises. A 3/4-inch feed line from the entry area extends to the west side of the premises to a tee. At the tee branch, the line is reduced to 1/2-inch and extends in a northerly direction to serve the water heater; and a second 1/2-inch line extends in a southerly direction. The valve on the southern line was in the open position and the line was traced to a connection in the kitchen directly behind the electric range. An examination of the area under and behind the range revealed a 1/2-inch, 90 degree ell with

a 1/2-inch uncapped brass metallic hose connection coupling. Further investigation revealed the line was open. The valve was operative, but difficult to turn. The report of the Danville City Fire Marshal indicates that the uncapped range connection was the source of natural gas that fueled the explosion. (Attachment 5 to Appendix A.) This finding is consistent with the findings of the State Fire Marshal's Office (Attachment 6 to Appendix A).

807 KAR 5:022, Gas Safety and Service, Section 1(7)(c), requires that each gas utility establish and maintain plans and procedures as required under the Commission's gas safety regulations. 807 KAR 5:022, Section 13(2)(b), requires each gas operator to establish a written operating and maintenance plan ("O&M plan") meeting the Commission's gas safety requirements. 807 KAR 5:022, Section 13(3), requires that each O&M plan contain instructions for employees covering operating and maintenance procedures during normal operations and repairs. 807 KAR 5:022, Section 1(4)(a), and Appendix A.II.F.2. incorporates by reference and adopts the requirements of the National Fire Protection Association, Standard 54 (1980) which provides that before gas service is initiated back into an existing system, "the entire system shall be checked to verify that there are no open fittings or ends and that all valves at outlets and equipment are closed." Part 4.2.1.

Western's O&M plan, effective August 1, 1990 and revised November 1, 1993, provides that prior to initiating or restoring customer service, employees should make certain that all open lines are capped or plugged. The plan also requires that all "usual areas," including the kitchen, should be inspected for unused gas outlets. Western restored service to 511 Smith Street on December 6, 1996 when the meter was replaced

and should have discovered the uncapped range line at that time. Western employees should have during the course of events occurring on March 4, 1997 traced or otherwise investigated the 1/2-inch line extending south from the tee connection on the west side of the premises.

Based upon the foregoing, the Commission finds that a prima facie showing has been made that Western has failed to follow its O&M plan, a violation of 807 KAR 5:022, Section 1(7)(c), and has failed to follow the requirements of NFPA, Standard 54, Part 4.2.1. KRS 278.992 provides that any person who violates any regulation governing the safety of pipeline facilities shall be subject to a civil penalty not to exceed \$10,000 for each violation for each day the violation persists up to a maximum civil penalty of \$500,000 for any related series of violations. Accordingly, Western should appear at a hearing scheduled for September 3, 1997, to show cause, if any it can, why civil penalties should not be assessed for the violations alleged herein.

IT IS THEREFORE ORDERED that:


1. Western shall appear at a hearing scheduled for September 3, 1997, at 10:00 a.m., Eastern Daylight Time, in Hearing Room 1 of the Commission's offices at 730 Schenkel Lane, Frankfort, Kentucky, to show cause why civil penalties should not be assessed pursuant to KRS 278.992 for the pipeline safety violations herein alleged.
2. Western shall file a written response to the alleged violations within 20 days of the date of this Order.
3. Any motion requesting an informal conference with Commission Staff to consider the simplification of issues or any other matters which may aid in the handling or

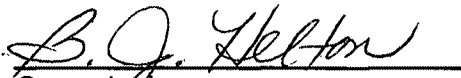
disposition of this proceeding shall be filed with the Commission no later than 20 days from the date of this Order.

Done at Frankfort, Kentucky, this 26th day of June, 1997.

PUBLIC SERVICE COMMISSION

  
Chairman

  
Vice Chairman

  
Commissioner

ATTEST:

  
Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 97-289 DATED 6/26/97

COMMONWEALTH OF KENTUCKY  
PUBLIC SERVICE COMMISSION

INCIDENT REPORT

WESTERN KENTUCKY GAS COMPANY  
Danville Service Area  
Danville, Kentucky

April 15, 1997

BRIEF

On March 4, 1997, at approximately 8:15 p.m., E.S.T., an explosion and fire destroyed the residence at 511 Smith Street in Danville, Kentucky. Four people were burned severely; a three-year old male, Christopher Jackson; a 10-year old female, Kala Benedict; a 30-year old female, Lisa Benedict; and a 34-year old female, Lily White. Mrs. Helen Benedict, a 53-year old female, was burned moderately on her face and hands.

I received initial notification of the incident by Mike Schmidt of Western Kentucky Gas Company ("WKG") at 9:55 p.m., E.S.T., on Tuesday, March 4, 1997.

The Danville Fire Department received a 911 notification of the incident, responded immediately at 8:15 p.m., E.S.T., and found five occupants of the house approximately 100 yards from the house on Smith Street. EMS units were summoned and transported the five occupants to the hospital in Danville. Four of the victims were then transferred to the Burn Unit at the University of Kentucky Medical Center in Lexington, Kentucky.

The house fire was extinguished at approximately 11:00 p.m. Difficulty in extinguishment of the fire was encountered as a result of a natural gas line breaking and

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Danville Service Area  
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igniting when the wall blew out and fell on the gas meter, regulator, and piping (Attachment 1, Photograph 7). The house at 509 Smith Street suffered severe fire damage (Attachment 1, Photographs 1 & 2) as well as two automobiles in driveways on both sides of the house. The house on the west side suffered debris damage (Attachment 1, Photograph 4).

### INVESTIGATION

Upon receiving notice from WKG at 9:55 p.m. on March 4, 1997 of the incident at 511 Smith Street in Danville, I contacted the Danville Fire Department relative to the status of the fire and also the condition of the burn victims. After finding that the fire had been extinguished and the area secured with the gas flow shut off, I determined to wait until daylight to travel to Danville and begin the investigation, since the fire victims were unavailable for discussion of the incident.

At 8:00 a.m. on March 5, 1997, I met with Danny Collier, Manager of WKG - Danville Service Area, at its office in Danville for the purpose of obtaining information from its service personnel relative to the service activities at 511 Smith Street prior to the explosion.

At 8:15 a.m., I interviewed service man, Carl Carter, in the presence of Messrs. Collier; Kevin Dobbs, Assistant Manager of WKG - Danville Service Area; George Teter, WKG's investigator; Bob Lewis, WKG's construction superintendent; Steven Wilkerson, service man; and John Gentry, Senior Engineer Technician. Mr. Carter had been dispatched to 511 Smith Street on March 3, 1997 at 12:25 p.m. in response to a complaint by the tenant, Lisa Benedict, that the furnace would not "stay lit." Mr. Carter was accompanied on the service call by Mr. Lewis.

Mr. Carter stated that he checked the furnace and water heater piping, finding a leak on the water heater control valve which he red tagged and instructed the tenant representative, a Mr. Stanley Penman, to notify the landlord that the water heater control valve must be replaced before it could be used. Mr. Carter stated he then shut off all appliances and conducted a shut-in test at the meter and found no gas passing through the meter for more than five minutes. Mr. Carter stated that he then attempted to light the furnace, but it would not continue to burn; therefore, he closed the control valve and told Mr. Penman that a plumber should be called to repair the furnace also, whereupon he left at 12:50 p.m. with all lines shut off.

At 8:30 a.m., I interviewed Mr. James Browning, WKG's service man, who was dispatched to 511 Smith Street at 2:30 p.m. on March 4, 1997, for the purpose of turning gas service back on after being notified by Ms. Benedict that a plumber had corrected the piping and appliance problems. All WKG personnel present at Mr. Carter's interview were present with Mr. Browning, except Messrs. Carter and Lewis. Mr. Browning stated that he used a Texas Instrument 8800 T.I.F. gas detector to confirm that there was no leakage around the newly installed control valve on the water heater. Mr. Browning stated that Ms. Benedict told him that the plumber had installed a new thermocouple in the furnace and that it should be ready to perform properly when gas service was provided. Mr. Browning stated that when he turned the gas service on for supplying the furnace, it would not light and burn properly, due to the fact that the pilot flame would not burn up high enough to allow the new thermocouple to function properly. He stated that he turned the furnace



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valve off and sniff-tested the furnace for leaks and determined that there was no leakage whereupon he told Ms. Benedict that the furnace was to be left off until a plumber could clean the feed line to the pilot flame which should allow enough heat from the pilot to allow the thermocouple to perform properly. Mr. Browning stated that he checked to see that all valves were closed except for the valve to the water heater, which was left open to provide hot water. He stated that he did not trace out where a gas line went upstairs from a valve that was connected to the segment of piping connected to the water heater, since he had confirmed that the valve was left in the closed position. He stated that Mr. Penman was on-site during this service call but he did not know whether or not he was there when he left between 3:10 and 3:15 p.m.

After my interview with Mr. Browning, Jim Helm and Gordon Scott of the State Fire Marshal's Office and I met with Chief Wendell Boyd and Investigator Mike Thomas, et al, of the Danville Fire Department at its office on Main Street at 9:30 a.m. Chief Boyd reviewed with us the events of the previous night at 511 Smith Street and stated that a press release of the findings to that time (Attachment 2) would be released at 10:00 a.m. He also stated that access to the basement at 511 Smith Street would probably be available shortly after noon, upon completion of pumping of water from the basement. Further examination revealed no water in the basement whereupon WKG was notified and all involved parties proceeded to 511 Smith Street. Access to the basement was gained at approximately 11:30 a.m. by sawing through the flooring between joists at the northeast corner (Attachment 1, Photographs 5 & 6).

Upon entering the basement, Mr. Helm and I traced the gas piping from its point of entry into the basement on the east wall to its various points of utilization. Attachment 1, Photograph 10, depicts the dispersion of the piping. The furnace was lying on the basement floor with the control valve in the off position fed by a ½-inch copper tubing line (Attachment 1, Photograph 9). The water heater was still upright with its control valve open (Attachment 1, Photograph 11). The ¾-inch feed line from the east side to the west side (Attachment 1, Photograph 14W) fed the water heater and a ½-inch brass valve in the open position (Attachment 1, Photograph 12). We then traced the line with the ½-inch brass valve in the open position and found that it entered the first story floor near the furnace (Attachment 1, Photograph 16W). Investigation of the location of the line revealed that it came through the floor directly behind the electric kitchen range. The range was covered with several inches of debris as was the area behind the range between the range and wall, approximately 8 inches. The oven door of the range was open. I closed the oven door and removed a skillet from atop the range and laid the range on its front to allow examination of the area under and behind the range. Removal of the debris revealed a ½-inch line with a 90° elbow running the line approximately 18 inches parallel to the wall behind the range terminating with another ½-inch 90° ell with a ½-inch uncapped brass metallic hose connection coupling (Attachment 1, Photographs 17W, 18W, & 19W).

We determined to confirm the status of the range line so WKG's service man, Mr. Teter, disconnected the union between the ½-inch brass valve and the ½-inch tee for the purpose of inserting a test gage nipple into the ½-inch brass valve (Attachment 1,

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Photograph 15W). He then commenced pumping air through the valve with a hand ball pump while I held my thumb over the open end coupling behind the range. Water with a very strong odor of mercaptan flowed from the opening upon removal of my thumb initially, then air continued flowing as long as Mr. Teter continued pumping to determine that the line could flow air.

Mr. Teter closed the ½-inch brass valve to the range for the purpose of determining whether or not it was operative. He stated that the valve could be closed and reopened, but that it was very difficult to turn, even after having been subjected to the fire's heat which should have softened the lubricant in the valve causing it to operate more easily.

Chief Boyd determined, at this time, that the open-end range connection was no doubt the source of gas which fueled the fire and explosion.

After this initial site investigation, Messrs. Helm and Scott, and I determined that an interview of Mrs. H. Benedict at the Ephraim McDowell Medical Center in Danville would be beneficial to our investigation, whereupon we proceeded to the hospital at approximately 12:30 to 1:00 p.m. We were informed that Mrs. H. Benedict had been released from the hospital in Danville and had gone to the Burn Unit at the University of Kentucky Medical Center to check on the condition of her two daughters, Lisa and Lily, and also her two grandchildren, Christopher and Kala.

We then traveled to the University of Kentucky Medical Center, Burn Unit, and were told that only immediate family members were allowed to visit the victims since all four were listed as being in critical condition. Mrs. H. Benedict was visiting the victims at the

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time. After a period of waiting in the visitor area, we learned that Mrs. H. Benedict had left the hospital. We then returned to Danville and the fire scene for further examination. At approximately 5:00 p.m., Mrs. H. Benedict arrived at the site in a very distraught state. She stated that she was hopeful of finding her purse and glasses which she badly needed.

Mrs. H. Benedict stated that she could smell gas from the time she arrived at Ms. L. Benedict's house at approximately 1:40 p.m. on March 4, 1997 until it blew. She said Ms. L. Benedict told her the plumber was working on the water heater and furnace. Mrs. H. Benedict also stated that there had been problems with the furnace off and on all winter. She stated that WKG's service man informed them that the water heater could be left on, but that gas service to the furnace would have to be left turned off until a plumber could come and condition the furnace for proper performance.

On March 6, 1997, I contacted Mrs. Mary Matherly at 402 6th Street, Danville, whose house is next door to 511 Smith Street and was told that she did not detect any gas odor prior to the explosion, but that she had not been out of her house all evening. I then contacted Tammy Love, who lives at 408 6th Street, next door to Mrs. Matherly. Ms. Love stated that when she went out into her back yard to attend to her dog, she detected a very strong odor of natural gas. She said this occurred about 10 or 15 minutes before the explosion.

As of March 13 and 20, 1997, respectively, all four patients at the Burn Unit at the University of Kentucky Medical Center were listed in serious but stable condition.

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Mr. Joe Frankel, III, owner of the property at 511 Smith Street, stated that the electric range had been installed the first of June, 1996. A check of WKG's records since January 1995 (Attachment 3) indicate that service to Ms. L. Benedict was turned on July 1, 1996. WKG's records also indicate the meter loop was rebuilt and meter and regulator were repaired on December 6, 1996, involving a meter replacement (Attachment 3). Total area of the house was approximately 999 square feet and the area of the kitchen was approximately 181 square feet.

Attached for informational purposes, is Attachment 5 - Report of Mike Thomas, Fire Marshal, City of Danville Fire Department, regarding the fire at 511 Smith Street on March 4, 1997 and Attachment 6 - Final Report of State Fire Marshal's Office.

#### CONCLUSION

807 KAR 5:022, Section 1(4)(a) states, "Any documents or parts thereof incorporated by reference in this section are a part of this regulation as though set out in full."

The requirements of the National Fire Protection Association Standard 54, National Fuel Gas Code, 1980 edition, ("NFPA 54") was adopted by the Kentucky Public Service Commission. Part 4 of NFPA 54 (Attachment 7) states under 4.2.1, "Before gas is turned on into a system of new gas piping, or back into an existing system after being shut off, the entire system shall be checked to determine that there are no open fittings or ends and that all valves at outlets and equipment are closed." 807 KAR 5:022, Section 1(7)(c) states,

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"Each utility shall establish and then maintain plans, procedures and programs as required under this regulation."

WKG's Operations and Maintenance ("O&M") Plan, on page 875, Item 4, of its Customer Service Section, Subject: Turn on Procedure titled Initiating or Restoring Service directs: "Make certain that all open lines are capped or plugged." (Attachment 4).

It would appear that WKG's service personnel did not follow this directive of its O&M Plan since the electric range had been in place since June of 1996 and WKG had turned gas service back into the existing system after having been shut off on at least one occasion, December 6, 1996.

Therefore, it appears that WKG has committed a probable violation of KAR 807 5:022, Section 1(4)(a) and 1(7)(c), in that WKG left an uncapped line in service allowing gas to flow into 511 Smith Street, when the valve controlling the gas flow was turned to the open position by an unknown person.

#### RECOMMENDATIONS

It is recommended that WKG adequately train its employees to ensure that all service personnel comply fully with all the procedures in its O&M Plan.

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It is further recommended that WKG be required to show cause why it should not be penalized for failure to comply with KAR 807 5:022, Section 1(7)(c), of this Commission's regulations.

Respectfully submitted,



E. Scott Smith  
Manager, Gas Pipeline Safety Branch

ESS:dcp/Insp. #9706200, Incident #278



PHOTOGRAPH 7 - Gas service riser on east side of 511 Smith Street (3/5/97). Near riser is inlet to regulator and meter. Outlet riser, leaning, was broken off below ground where it entered foundation.



PHOTOGRAPH 5 - Fire department representative sawing opening in floor. Taken looking north from northeast corner of drive between 511 & 509 Smith Street (3/5/97).



ATTACHMENT 1

Photographs of 511 Smith Street, Danville, KY  
on March 5, 1997



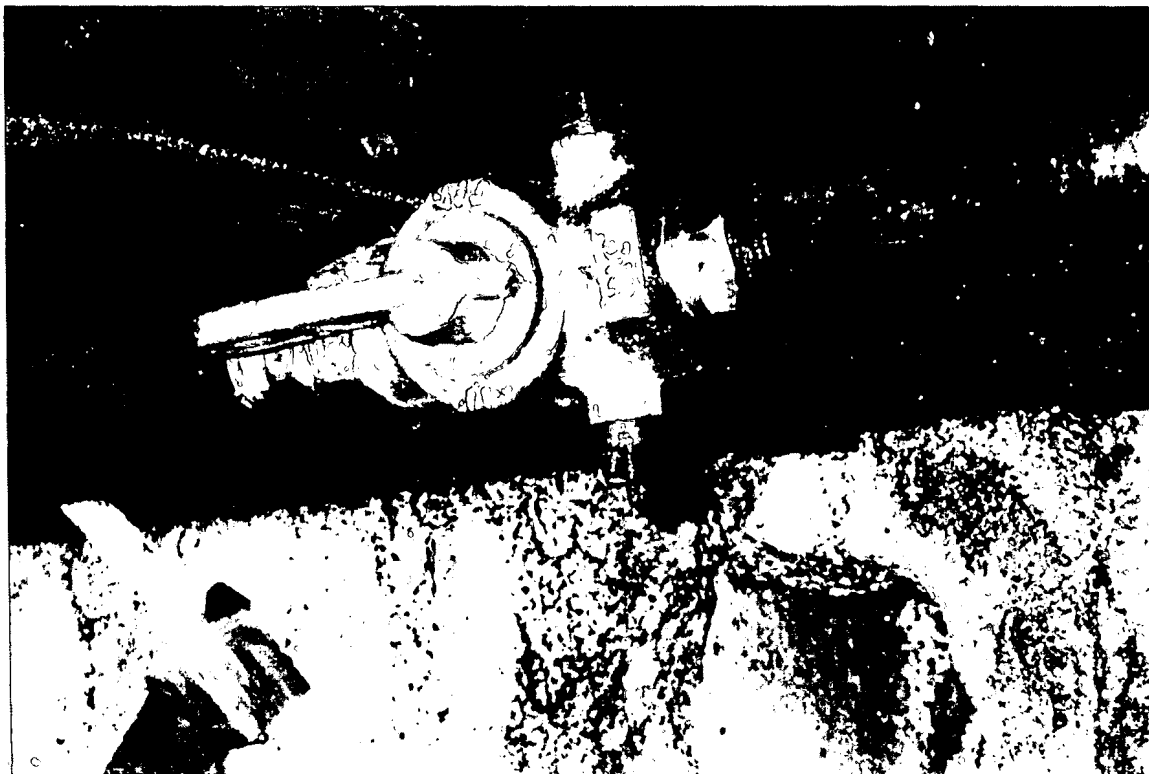
PHOTOGRAPH 1 - Front and east side of house. Debris covering area of curb valve location. West side of 509 Smith Street also shown. (3/5/97)



PHOTOGRAPH 2 - Front of house and west side of 509 Smith Street also shown. (3/5/97).



PHOTOGRAPH 4 - Portion of wall of house looking northwest from front. Also shown is east side of 402 6th Street with debris and explosion damage. (3/5/97).



PHOTOGRAPH 12 - 1/2-inch brass valve to line that had open end connector behind electric range. (3/5/97).

ATTACHMENT 1

Photographs of 511 Smith Street, Danville, KY  
on March 5, 1997



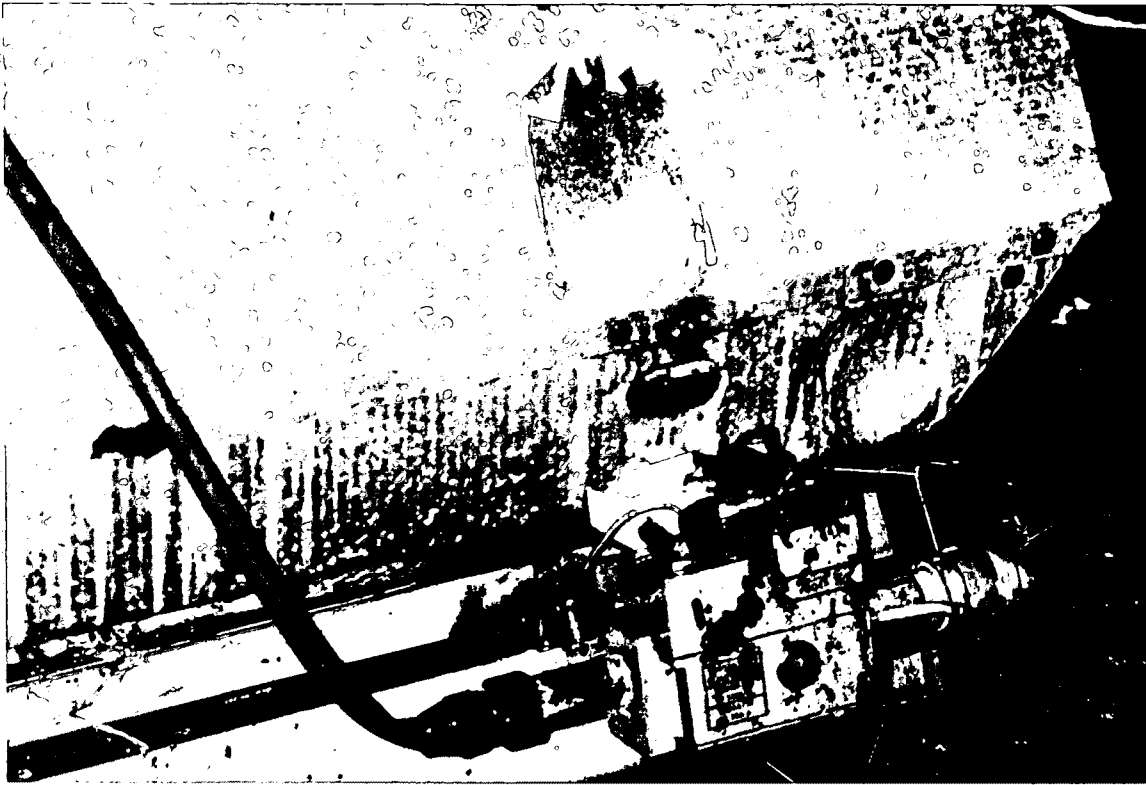
PHOTOGRAPH 6 - Fire department representative sawing opening in floor to provide access to basement. Photograph taken looking south from rear of house. (3/5/97).



PHOTOGRAPH 10 - Inlet piping from meter. Lower line connecting to 1/2-inch copper tubing running to floor furnace. Upper line runs from east to west wall and tees to water heater and 1/4-inch range line valve. (3/5/97).

Photographs of 511 Smith Street, Danville, KY  
on March 5, 1997

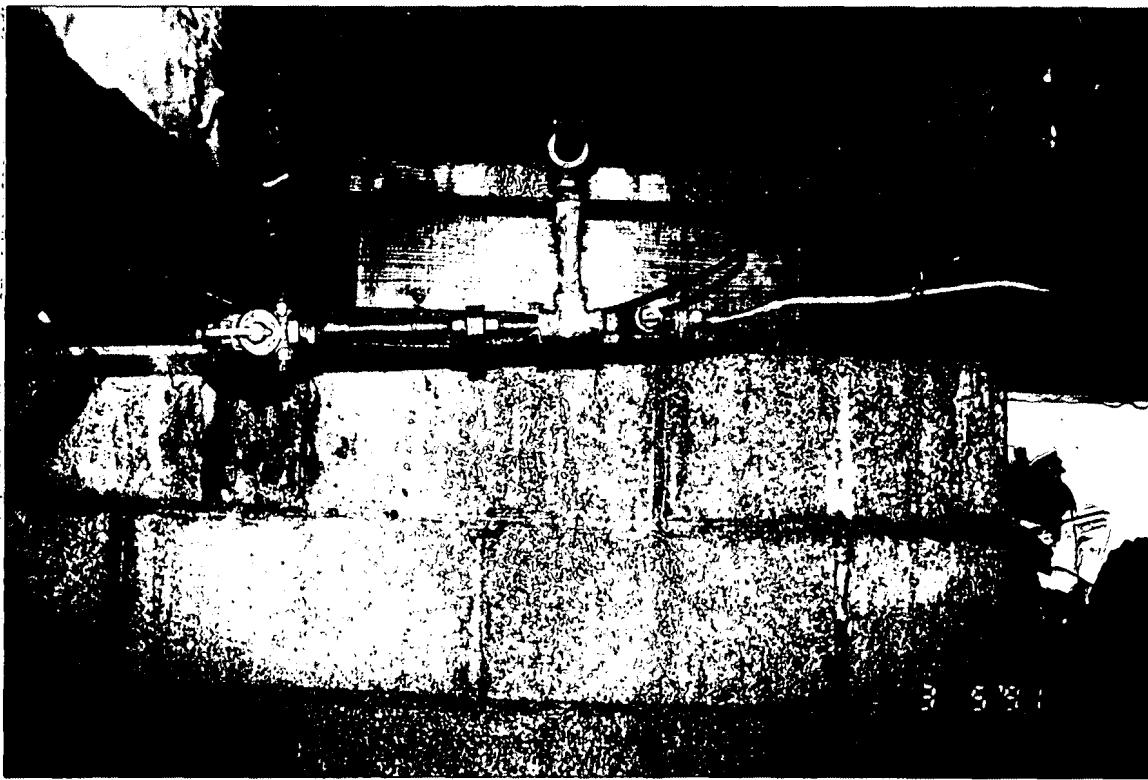
ATTACHMENT 1



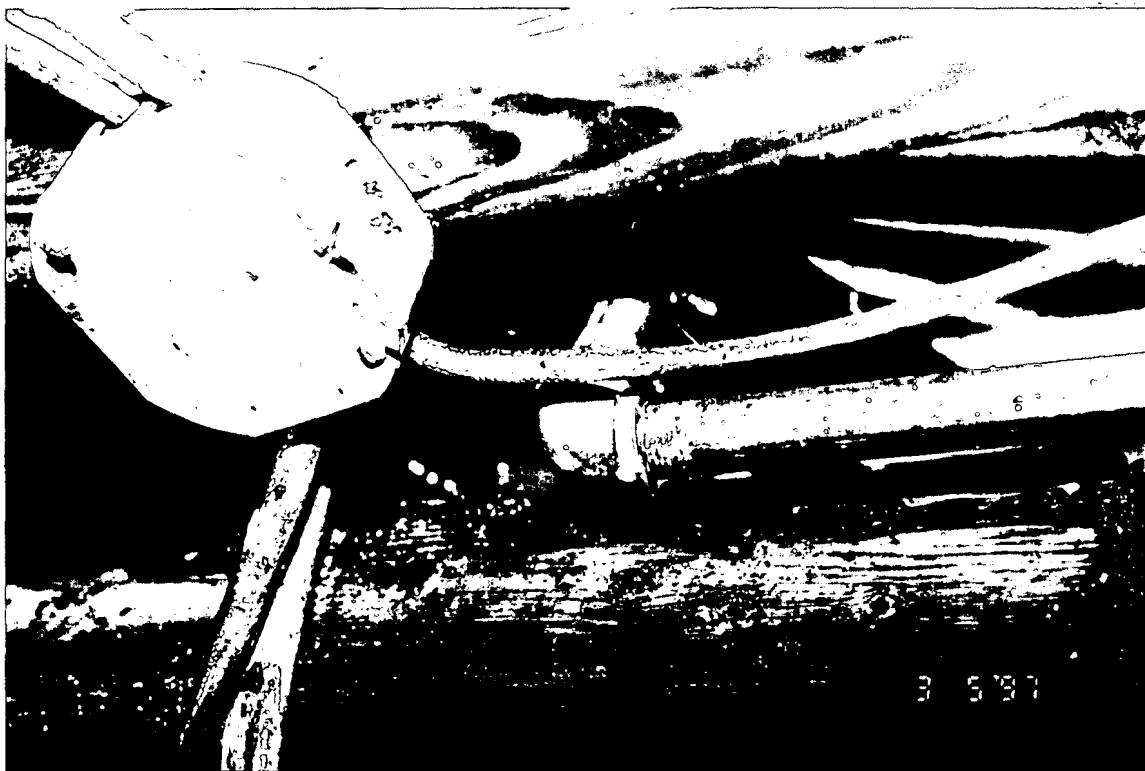
PHOTOGRAPH 9 - Control valve on floor furnace in "OFF" position. (3/5/97).



PHOTOGRAPH 11 - Replaced control valve on water heater. Replaced on 3/4/97. (3/5/97).



PHOTOGRAPH 14W - 3/4-inch feed line overhead coming from east to west wall feeding 1/2-inch water heater line on right and 1/2-inch brass valve in open position to range to line. (3/5/97).



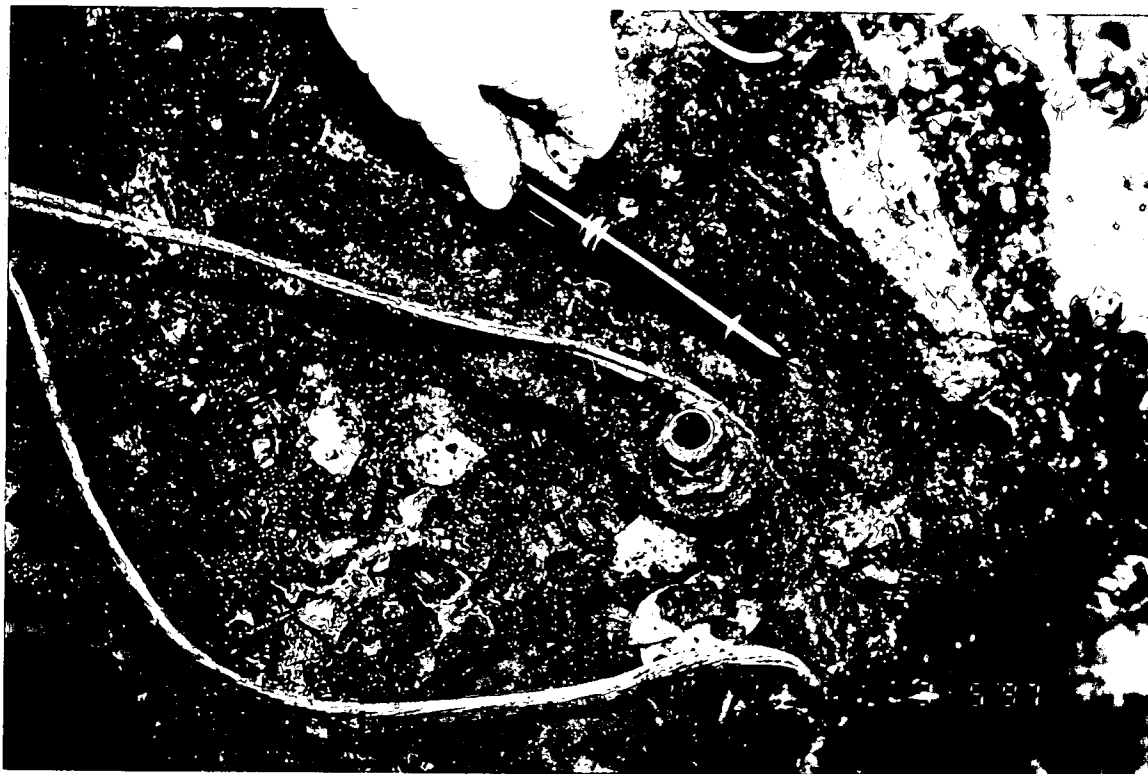
PHOTOGRAPH 16W - 1/2-inch gas line from 1/2-inch brass valve showing where line goes through floor (3/5/97).

Photographs of 511 Smith Street, Danville, KY  
on March 5, 1997

ATTACHMENT 1



PHOTOGRAPH 17W - 1/2-inch gas line behind range immediately after removal of debris. (3/5/97).



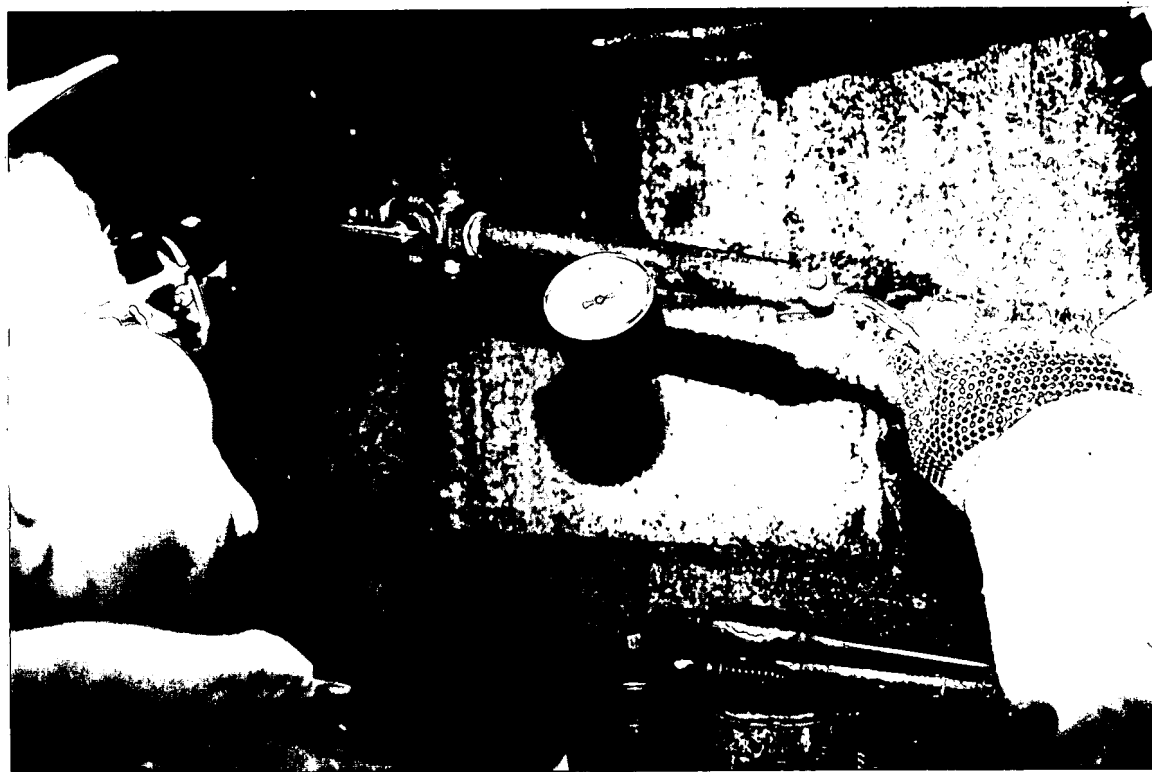
PHOTOGRAPH 18W - 1/2-inch gas line behind range showing 1/2-inch bronze range connector. (3/5/97).

ATTACHMENT 1

Photographs of 511 Smith Street, Danville, KY  
on March 5, 1997



PHOTOGRAPH 19W - Same as 18W. Closeup of range connector. (3/5/97).



PHOTOGRAPH 15W - Test gage and hand ball pump connected to 1/2-inch brass valve pumped by Mr. Teter. (3/5/97).

Photographs of 511 Smith Street, Danville, KY  
on March 5, 1997

ATTACHMENT 1

ATTACHMENT 2

PRESS RELEASE OF DANVILLE FIRE DEPARTMENT

PRESS RELEASE DANVILLE FIRE DEPT.

10:00 AM WEDNESDY MARCH 5,1997

On Tuesday march 4,1997 Danville Central Communications received numerous 911 calls reporting a house on fire at 511 Smith St.after some sort of explosive effect. The first call was received at 8:15 p.m. The first fire units arrived on the scene at 8:17 p.m. At the time of arrival the house was fully involved in fire and the house adjacent to the east was exposed to direct flame contact.

Also upon arrival five occupants of the home were discovered in the street suffering from burns. The victims and injuries are listed below.

3 year old male- Christopher Jackson suffered second degree burns to 18% of his body and was transferred to a hospital in Lexington

10 year old female- Kala Benedict suffered second degree burns to 45% of her body and was transferred to a hospital in Lexington

30 year old female- Lisa Benedict suffered second degree burns to 64% of her body and third degree burns to her hands and was transferred to a hospital in Lexington

34 year old female- Lily White suffered second degree burns to 70% of her body and third degree burns to her hands and was transferred to a hospital in Lexington

53 year old female- Helen Benedict suffered second degree burns to 18% of her body including face and hands and remains in Ephraim Mcdowell Regional Medical Center.

Three Danville City fire apparatus were on the scene including two engines and one command vehicle. A total of 25 firefighters responded including off duty personnel and part time firefighters. 6 Danville police officers were on scene to secure the area and control traffic.

Boyle County EMS responded with 4 ambulances with 2 more ambulances reserve. 9 EMT's and 7 Paramedics responded

3 investigators from the Kentucky State Fire Marshall's office responded , additionally personnel from Western Ky. Gas, Kentucky Utilities and the Danville Water Dept. responded to control utilities.

The cause of this incident remains under investigation.



WESTERN KENTUCKY GAS COMPANY'S SERVICE RECORDS

METR CHG PC 1/0 WORK AREA DATE 10/25/96  
 TIME 14:11:44 000 REF: S00016  
 PREMISE RECEIVED SCHEDULED DISPATCHED ASSIGNED SERVICE  
 DATE TIME DATE TIME DATE TIME TECHNICIAN  
 544070 102396 02:35P 090797 00:00A 090797 02:11P  
 CURRENT ACCOUNT [REDACTED] METER SIZE 031 METER # 0236145  
 TENANT/ADDRESS BENEDICT, LISA MAIN LINE PRIORITY 1  
 511 SMITH ST GROUP LINE DIALS 4  
 COMP IDX DEVICE  
 DATE LAST READ 100196 RD INSTR  
 LAST READING 000008797 LOCATION R RIGHT SIDE  
 LAST MCF 00000019 AIDS  
 \*\*\* DATE LAST REPAIRED 0187 \*\*\*  
 ORDER RECEIVED BY  
 CHERYL H LESTER

SPECIAL INSTRUCTIONS DUE P.C.	BILLING HISTORY			
	BLDATE	CM	MCF	MCF
	961004	10	19	000000 00 0
	960904	09	18	000000 00 0
	960802	08	20	000000 00 0
	960703	07	0	000000 00 0
	960605	06	0	000000 00 0
	000000	00	0	000000 00 0

DATE WORKED 12-16-96 -- CIRCLE ONE --  
 TIME ARRIVED 2:30 AM PM NO CHARGE ITEM  
 TIME COMPLETED 4:00 AM PM AFTER HOURS  
 NUMBER OF TECH NUMBER OF ORDERS  
 PERFORMING SERVICE 31 METER LEFT ON Y N  
 CIRCLE ONE

METER INSULATED?  N LEAKAGE AMT \_\_\_\_\_  
 ANY LEAKS?  N PRESSURE FOUND ON SETTING \_\_\_\_\_  
 DISTINCTIVE ODOR?  N PRESSURE CORRECTED TO \_\_\_\_\_  
 REGULATOR LOCKED UP?  N  
 PASS SLOW FIRE?  N  
 DEVICE CODE \_\_\_\_\_  
 ORDER STATEMENT # 0236145 COMP INDEX \_\_\_\_\_  
 PREVIOUS READING 000008797

OLD METER SIZE 031 OLD METER NO. 0236145  
 NEW METER SIZE 031 NEW METER NO. 9653745

REMARKS  
Shut in Test Ct  
Print MTR - 12/16

12/16/96

AH  
12.9.96

SERVICE ORDER

LISA BENEDICT

MTR CHANGED OUT

MTR PRINTED

ACCOUNT [REDACTED] PREMISE 544070 PAINTED METER 1218/9/96  
TENANT BENEDICT, LISA  
ADDRESS 511 SMITH ST REMARKS:

DATE/TIME	TECH	WORK	AFTER	CHARGE	ITEM	# OF	TOTAL	# OF	TOTAL	TOTAL	
DISPATCH	WORKED	NO.	CODE	HOURS	OPTION	CHARGE	ITEMS	PARTS	HOURS	LABOR	SERVICE
120996	120696	31	150	N	NO	0.00	1	0.00	0.00	0.00	0.00
02:33P	04:00P		REPAIR	METR/REG		REC'D BY	AGATHA HENRY				

METER INSULATED  
ANY LEAKS  
DISTINCTIVE ODOR  
REGULATOR LOCKED UP  
PASS SLOW FIRE  
ODOR STATEMENT #  
PARTS LISTS AVAILABLE N  
PF3 EXIT PF4 DISPLAY PARTS LIST

CURRENT	READING	METER	METER	A/C
OUT		SIZE	NUMBER	NUMBER
IN	0			
		LEAKAGE	AMOUNT	CPH
		PRESSURE	FOUND ON	SETTING
		PRESSURE	CORRECTED TO	

ACCOUNT [REDACTED] PREMISE 544070 SHUT IN TEST ON LIGHT CHG-W/H  
 TENANT BENEDICT, LISA AD12/5/96  
 ADDRESS 511 SMITH ST REMARKS:

DATE/TIME	TECH	WORK	AFTER	CHARGE	ITEM	# OF	TOTAL	# OF	TOTAL	TOTAL	
DISPATCH	WORKED	NO.	CODE	HOURS	OPTION	CHARGE	ITEMS	PARTS	HOURS	LABOR	SERVICE
120996	120696	31	402	N	NO	0.00	1	0.00	0.00	0.00	0.00
02:32P	04:00P		LOOP	REBUILD							

REC'D BY AGATHA HENRY  
 CURRENT READING METER METER A/C  
 OUT 8937 031 0236145 NUMBER  
 IN 0 031 9653945 NUMBER  
 LEAKAGE AMOUNT CPH 0  
 PRESSURE FOUND ON SETTING 402  
 PRESSURE CORRECTED TO 402

METER INSULATED Y  
 ANY LEAKS N  
 DISTINCTIVE ODOR Y  
 REGULATOR LOCKED UP Y  
 PASS SLOW FIRE Y  
 ODOR STATEMENT #  
 PARTS LISTS AVAILABLE N  
 PF3 EXIT PF4 DISPLAY PARTS LIST

ACTIVE REMARKS ON FILE. CHECK BOB AND/OR LOCATOR AIDS  
 ACCOUNT [REDACTED] PREMISE 544070 MAIN GROUP PROBATE IN  
 TENANT BENEDICT, LISA AREA 000 DEPOSIT TAKEN D 1 MTH COLLECTION Y  
 SERVICE ADDRESS: LAST BILL 140.20 INSIDE CITY  
 511 SMITH ST DUE TODAY 72.89 GROSS  
 DANVILLE 40422 LAST TENANT HENRICH, LEO  
 CODE PENDING ORDERS SCHEDULED STATUS CODE SERVICE HISTORY WORKED  
 - NO SERVICE ORDERS PENDING - 161 LEAK CUST PREM 030397  
 - 150 REPAIR METR/REG 120696  
 - 402 LOOP REBUILD 120696  
 - 120 TURN ON NEW CUS 070196  
 - 900 TURN OFF TRSF 060396  
 - HENRICH, LEO  
 - 120 TURN ON NEW CUS 092695  
 - 920 TURN OFF, FINAL 092595  
 - LARRISON, BEVERLY  
 - NC LARRSON, BEVERLY 072195  
 NEW ORDERS REC'D MMDDYY  
 030597 PF2 EXAM INIT PF5 TENANT PF9 FD COMP CANCEL  
 REC'D HH:MM EXAM COMP PF6 FD INIT PF10 INQUIRY RESCHED  
 7 : 05A PF3 EXIT PF7 BK HST PND PF11 LEDGLR CODES  
 PF4 PREM CSD PF8 FD HST PND PF12 CASH PS COLL

Computer  
 Printout-MASTER  
 CARD - 511 Smith St.

ATTACHMENT 3

WESTERN KENTUCKY GAS COMPANY'S SERVICE RECORDS

120 TURN ON NEW BUS  
TIME 18:54:48 K0360

WORK AREA  
00

DATE 06/28/96  
REF: SC0009

PREMISE	RECEIVED	SCHEDULED/DISPATCHED		ASSIGNED SERVICE
DATE	TIME	DATE	TIME	TECHNICAN
544070	062896 02:45P	070196	00:00A	070196 08:00A

CURRENT ACCOUNT [REDACTED]  
TENANT/ADDRESS BENEDICT, LISA  
511 SMITH ST

METER SIZE 031 METER # 0236145  
MAIN LINE PRIORITY 0  
GROUP LINE DIALS 4  
COMP IDX DEVICE

DATE LAST READ 060396 RD INSTR  
LAST READING 000008740 LOCATION R RIGHT SIDE  
LAST MCF 0 AIDS  
\*\*\* DATE LAST REPAIRED 0187 \*\*\*  
ORDER RECEIVED BY  
CHERYL H LESTER

BILLING HISTORY

SPECIAL INSTRUCTION	BLDATE	CM	MCF	BLDATE	CM	MCF
TURN ON --- FRONT DOOR WILL BE OPEN	060596	06	0	000000	00	0
	000000	00	0	000000	00	0
	000000	00	0	000000	00	0
118 S/C CL/6-28-96	000000	00	0	000000	00	0
	000000	00	0	000000	00	0
	000000	00	0	000000	00	0

DATE WORKED 7/1/96  
TIME ARRIVED 7:00 AM  PM  
TIME COMPLETED 2:30 AM  PM  
NUMBER OF TECH PERFORMING SERVICE 21  
CHARGE?  YES  NO  
AFTER HOURS  Y  N  
METER LEFT ON  Y  N  
NUMBER OF ORDERS 1

PREVIOUS READING 000008740  
CURRENT READING 8740

	CIRCLE ONE		
METER INSULATED?	<input checked="" type="radio"/> Y <input type="radio"/> N	LEAKAGE AMT	<u>0</u>
ANY LEAKS?	<input type="radio"/> Y <input checked="" type="radio"/> N	PRESSURE FOUND ON SETTING	<u>90%</u>
INSTINCTIVE ODOR?	<input checked="" type="radio"/> Y <input type="radio"/> N	PRESSURE CORRECTED TO	<u>90%</u>
REGULATOR LOCKED UP?	<input checked="" type="radio"/> Y <input type="radio"/> N	DEVICE CODE	---
CLASS SLOW FIRE?	<input checked="" type="radio"/> Y <input type="radio"/> N	COMP INDEX	---
DOOR STATEMENT #	---		

REMARKS  
on Hill about meter  
lets Pilot on WH&F

Service Order  
7/1/96  
TURN ON  
LISA BENEDICT

ACCOUNT [REDACTED] PREMIS- 544070 DN. HELD SHUT IN TEST. LIT PILOTS ON  
 TENANT BENEDICT, LISA WH AND FURN.  
 ADDRESS 511 SMITH ST REMARKS: 007-2-96

DATE/TIME	TECH	WORK	AFTER	CHARGE	ITEM	# OF	TOTAL	# OF	TOTAL	TOTAL	
DISPATCH	WORKED	NO.	CODE	HOURS	OPTION	CHARGE	ITEMS	PARTS	HOURS	LABOR	SERVICE
070196	070196	21	120	N		18.00	1	0.00	0.00	18.00	18.00
08:00A	02:30P				TURN ON NEW CUS						

REC'D BY CHERYL H LESTER  
 METER METER A/C  
 READING SIZE NUMBER NUMBER  
 8740  
 METER INSULATED Y CURRENT  
 ANY LEAKS N OUT  
 DISTINCTIVE ODOR Y IN  
 REGULATOR LOCKED UP Y LEAKAGE AMOUNT CFPH 0  
 PASS SLOW FIRE Y PRESSURE FOUND ON SETTING 402  
 ODOR STATEMENT # 0 PRESSURE CORRECTED TO 402  
 PARTS LISTS AVAILABLE N  
 PF3 EXIT PF4 DISPLAY PARTS LIST

ATTACHMENT 4

WESTERN KENTUCKY GAS COMPANY  
O&M PLAN - PAGE 875

*ATMOS ENERGY CORPORATION  
OPERATIONS AND MAINTENANCE PLAN*

---

SECTION: Customer Service  
SUBJECT: Turn On Procedure  
TITLE: Initiating or Restoring Service

O and M STD. NO.: F:415.01  
REFERENCE:

---

ISSUE DATE: 07/26/90

EFFECT. DATE: 08/01/90

REV. DATE: 11/01/93

---

1. Verify the correct service address and meter serial number.
2. If the customer is not home, the meter must not be turned on until approved access to the premises is given.
3. Turn off all pilots and the appliance gas valve to each appliance that is not equipped with a safety device. The shut-in test should be performed through all piping as close to the burner as possible.
4. Make certain that all open lines are capped or plugged.
  - A. Inspect all usual areas for unused gas outlets. Kitchen, utility room, bathroom, garage, etc.
5. Remove the blind plate.
  - A. Remove the blind plate from the outlet side of the meter.
6. Refer to the Shut-in and Appliance Light-Up Procedures for further directions. (See Atmos Standard(s) Number F:615.01.)

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ORIGINAL APPROVED BY: CHAIRMAN, CORPORATE  
TECHNICAL STANDARDS COMMITTEE

PAGE 1 OF 2

ATTACHMENT 5

Explosion and House Fire at  
551 Smith Street  
04 March 1997

REPORT OF MIKE THOMAS, FIRE MARSHAL  
CITY OF DANVILLE FIRE DEPARTMENT  
EXPLOSION AND FIRE - 511 SMITH STREET, DANVILLE  
MARCH 4, 1997

On 04 March 1997, at a little past 8:10 pm, an explosion occurred in a rental single family dwelling located at 511 Smith Street in Danville. At the time of the explosion, the house was occupied by the tenant, as well as several family members. The explosion appeared to be a low order explosion, pushing the two side exterior walls out, allowing the roof to drop in the home. Houses adjoining this house suffered damage from flying debris as well as from radiant heat and direct flame contact damage.

Four persons were sent to the University of Kentucky Medical Center in Lexington for treatment; a fifth victim, Ms Helen Benedict, was taken to Ephraim McDowell Regional Medical Center in Danville for treatment. At approximately 9:55 pm, a brief interview was made with Ms Helen Benedict regarding the explosion and the events leading up to the incident; Ms Benedict appeared to be conscious and responsive at the time of the interview, conducted by Mike Thomas, Fire Marshal.

Ms Helen Benedict indicated she was the mother of the lessee, Ms Lisa Benedict. She indicated that the day of the incident, there had been problems associated with the gas-fired furnace and water heater, located in the basement of the house, along with associated odor of natural gas inside the home. She said that her daughter had contacted the landlord, Mr. Joseph Frankel, Jr., regarding the problems. According to Helen Benedict, Mr. Frankel contacted a plumber to work on the water heater. The plumber was working in the basement at the time Ms Helen Benedict arrived at the house, at approximately 1:40 pm the day of the incident. According to Helen, he was there to fix a gas leak around the water heater. Helen said that the plumber told Lisa that she would now have hot water available at around this time.

At around 2:30 pm, a representative from Western Kentucky Gas Co., described by Helen Benedict as a "little black man", came to the residence. Helen said he went down into the basement several times regarding the furnace and water heater. Helen said the WKG personnel told Lisa that the valve for the water heater had been replaced, but that he could not get the pilot light to stay lit. According to Helen, he told Lisa that he had shut the gas off; Helen Benedict indicated she thought that meant the gas was turned off at the meter. She said the WKG employee said to have the furnace repaired and that WKG would send someone to turn the furnace on afterwards. Helen said that Mr. Frankel was contacted, and said that someone would be sent Wednesday morning to make these repairs.

Helen said that sometime later, they noticed the gas smell in the house again. Helen said she tried to convince Lisa to come to her house to spend the night, but that Lisa would only agree to send the children. During this time, laundry was being done in a rear room in the house, according to Ms Benedict. According to Helen Benedict, the odor of gas continued to grow stronger, and some neighbors indicated to her that they could smell gas as well. At some point, Helen Benedict left and returned to the house and continued working on the laundry.

At a little past eight o'clock that evening, Helen Benedict said she went to the back room of the house to pull towels from the dryer. She said she opened the dryer door and began to fold the first towel when the explosion occurred. (At the time of this interview, Ms Helen Benedict was in the hospital emergency room, with her hair singed around her face, and with burns on the face and nose.) Helen didn't recall how she got outside the house, and had vague recollections of what occurred after the explosion.

At the scene after the explosion, firefighters found the house involved in fire, with a gas-fueled fire occurring on the east side of the house, where the gas meter was located. The east and west walls had blown out to the sides, with the main central wall of the house standing but heavily burned. The front porch columns and roof had collapsed. The clothes dryer was found several feet away from the house in the back yard; the appliance was an electric dryer. The roof of the house had collapsed onto the floor, although some wall sections remained upright. Fire occurred mainly on the first floor area, with little appreciable extension into the



basement level. The foundation appeared to be intact, as did the mud sill plate and the floor joists. It appears that the side walls were knocked from the floor decking to the outside for 2 to 3 feet, where they then fell, landing on cars on either side of the house. Because of the fire burning between the flooring and the roof deck, extinguishing the isolated pockets of fire was difficult, and required some assistance from a local backhoe operator.

Because of the nature of the incident and the injuries, the State Fire Marshal's office was contacted regarding a fire investigation. The investigation was continued the following morning, with representatives from the State Fire Marshal, Western Kentucky Gas, and local fire department officers.

The only gas-fired appliances in the house were a water heater and a furnace, both located in the basement. The clothes dryer, initially reported by Helen Benedict as being a gas-fired appliance, was in fact an electric dryer. The cooking range in the kitchen was also an electric appliance. In the basement, the gas piping entered through an opening in the east foundation wall. There, the piping was reduced in size, where it split into two individual lines, each with a shut-off valve. One line, which was made of copper tubing, ran to the gas-fired furnace; the other line ran over to the west foundation wall. At that point, the line divided in two again, with each branch being equipped with a gas shut-off valve. The line going towards the rear of the house served the gas-fired water heater. The other line went to the kitchen, behind the electric range. This line apparently was installed to serve a gas range. The line was uncovered by Jim Helm of the State Fire Marshal's office; the unused line was not capped at the time of the investigation. In addition, the shut-off valve serving this line was found to be in an open position at the time of the investigation.

It appears that this valve was opened at some point, possibly by a person thinking the line served the gas furnace. With no cap on the end of the line, gas would have escaped into the house for some time, until such time as an ignition source was found. (At the hospital, a family member said that Lisa made a statement that she had just lit a cigarette when the explosion occurred; Helen said that the explosion occurred shortly after opening the dryer.)

Mike Thomas, Fire Marshal  
City of Danville Fire Department

Photo #1 - Shows Jim Helm, State Fire Marshal (red helmet) and representative from Public Services Commission (white helmet). Gas valve serving kitchen gas outlet is visible to the left of the white helmet, and appears to be in an open position. Valve was not touched or reset at any time prior to this photograph. Photo by Mike Thomas, 03/05/97, before noon.

Photo #2 - Arrow added to photo after developing for detail. Indicated location of uncapped gas outlet in kitchen on first floor of house, with electric range in foreground, wall board material (gypsum lath board with plaster finish) in background. Outlet was uncovered by Jim Helm, SFM, shown in condition found. Photo by Mike Thomas, 03.05/97.

Photo #3 shows Jim Helm, SFM, indicating the uncapped outlet and a portion of the gas line found behind the electric range in the house. Tests done after this photo indicated that the line was open and the shut-off valve open as well at the time of the explosion. Photo by Mike Thomas, 03/05/97.

COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HOUSING, BUILDINGS & CONSTRUCTION  
OFFICE OF THE STATE FIRE MARSHAL  
1047 U.S. HIGHWAY 127 SOUTH, SUITE 1, FRANKFORT, KY 40601-4337  
TELEPHONE: (502) 564-3626 FAX: (502) 564-6799

**FIRE INVESTIGATIVE REPORT**

1. FIRE DEPARTMENT: Danville Fire Dept. 2. KSPM CASE NO.: 9703042100RRHM
3. FACILITY (PROPERTY): Residence (Rental)
4. STREET: 511 Smith St.
5. CITY & COUNTY: Danville, Boyle Co.
6. TIME OF OCCURRENCE: DAY Tuesday DATE 3-4-97 TIME 8:15 P.M. HRS.
7. OCCUPANCY TYPE:  S.F.  BUS.  APT.  OTHER: \_\_\_\_\_
8. FMO RESPONSE REQUESTED BY: Danville Fire Dept.
9. TIME OF REQUEST: 2100 hrs (900pm) DATE: 3-4-97
10. PRIMARY INVESTIGATOR NAME: Rodney Raby FM2 DAY Tue DATE 3-4-97 TIME 945PM
11. ARRIVED ON SCENE: DAY Tue DATE 3-4-97 TIME 945PM
12. 2ND INVESTIGATOR NAME: Gordon Scott FMB1 DAY Tue DATE 3-4-97 TIME 945PM
13. ARRIVED ON SCENE: DAY Tue DATE 3-4-97 TIME 945PM
14. 3RD INVESTIGATOR NAME: James Helm FMB DAY Wed DATE 3-5-97 TIME 0730AM
15. ARRIVED ON SCENE: DAY Wed DATE 3-5-97 TIME Approx 1030AM

16.	NO.	NAME	SEX	D.O.B.	SOCIAL SECURITY #	PHONE NO.
O	1.	Helen Benedict	F			
C	2.	Lisa Benedict	F			
C	3.	Kala Benedict	F			
U	4.	Lily White	F			
P	5.	Christopher Jackson	M			
A	6.					
N	7.					
T	8.					

17. OWNER: Joey Frankel PHONE: \_\_\_\_\_  
CAN BE REACHED AT THIS ADDRESS: \_\_\_\_\_

18. INSURANCE	COMPANY NAME	PHONE NO.	AMOUNT
<input type="checkbox"/> Yes <input type="checkbox"/> No			

19.  FIRE  EXPLOSION  EXPLOSION/FIRE  OTHER: \_\_\_\_\_

20. INJURY:  YES  NO NAME: All occupants (see above)  
DEATH:  YES  NO NAME: \_\_\_\_\_

FIRE INVESTIGATIVE REPORT (CONT'D)

KSFM CASE NO.: 9703042100RRHM

21. CONST. TYPE:  WD.FR.  ORD.  OTHER: \_\_\_\_\_

22. MOBILE HOME: YEAR \_\_\_\_\_ MAKE \_\_\_\_\_ MODEL \_\_\_\_\_ SERIAL# \_\_\_\_\_ LICENSE # \_\_\_\_\_

23. PROTECTION:  S.D.  F.A.  SPRINKLER  NONE

24. ENERGY SERVICE:  ELEC.  NAT. GAS  OTHER: \_\_\_\_\_

25. WEATHER CONDITIONS: Pt. Cloudy TEMP 40's WIND DIRECTION SW-variable

26. RESPONDING FIRE DEPT.: \_\_\_\_\_ PHONE # \_\_\_\_\_

27. HOW NOTIFIED: \_\_\_\_\_ TIME OF ARRIVAL \_\_\_\_\_ HRS.

\*NOTE: ABOVE NOT NECESSARY IF FIRE RUN REPORT IS ATTACHED.

28. FIRST-IN FIREFIGHTER NAME: \_\_\_\_\_

29. ANY FIRE ENHANCERS DISCOVERED: \_\_\_\_\_  
Where, Describe) \_\_\_\_\_

30. PHOTOS TAKEN:  Yes  No BY WHOM: John Gendry - Western Ky. Gas Co.

31. ANYTHING REMOVED FROM FIRE SCENE: No

32. DESCRIPTION OF INVESTIGATION ACTIVITIES INCLUDING CAUSE & ORIGIN  
(HOW, WHEN, WHAT, WHY, & WHERE)

See Attached

(USE ADDITIONAL PAPER IF NECESSARY)

33. CONCLUSION

AREA OF ORIGIN: Kitchen Area

POINT OF ORIGIN: Unknown

HEAT SOURCE: Unknown

MATERIAL 1ST IGNITED: Natural Gas

CATEGORY: Accidental (Gas Explosion)

## INVESTIGATIVE REPORT

Case Number FI9703042100RRHM

Page 1 of 1

Received notification from Rodney Raby (FM2) by phone at approximately 9:00 pm, Tuesday, March 4, 1997 of an explosion at a private residence at 511 Smith Street, Danville-Boyle County. FM2 and myself arrived on the scene at 9:45 pm.

Upon our arrival, the Danville Fire Department was still extinguishing a few hot spots remaining in the debris. The house was totally destroyed except for a few of the interior walls. The exterior walls were blown away intact, with the roof falling straight down in the living quarters. There was a debris ring surrounding the property, but did not appear to be of a high velocity outward from the structure.

After meeting with Chief Wendel Boyd and Asst. Chief Jim King of the Danville Fire Department, we were informed of five victims in the blast. At this time, all had received injuries ranging from moderate to severe with 2nd and 3rd degree burns. All were hospitalized in Danville or Lexington.

The house was supplied electricity by Kentucky Utilities and natural gas by Western KY Gas Co. Due to darkness and water in the basement from firefighting it was decided to postpone the investigation until daylight on March 5, 1997. This was to insure the safety of the investigators due to unstable structures and inaccessibility to the basement. Although further investigation is upcoming, at this time it looks as if natural gas is the contributing factor in this incident.

The scene was secured for the night by Danville Fire Dept. and Danville Police Dept. The investigators will be James Helm (FM 8) and myself (Gordon Scott, FM 61). We will meet with representatives from Danville Fire Dept., Western KY Gas and Public Service Commission on March 5, 1997 to gain entry to the basement area of the house and continue the investigation.

## INVESTIGATIVE REPORT

**Case Number** FI9703042100RRHM

**Investigation:** On March 5th 1997, Deputy State Fire Marshal Gordon Scott and Senior Deputy State Fire Marshal James E. Helm arrived at the Danville Fire Department to meet with representatives of other state and local agencies involved in the investigation of an explosion and fire that occurred yesterday at a residence located at 511 Smith Street, Danville, Kentucky.

Scott Smith of the Gas Engineering Section in the Public Service Commission and representatives with Western KY Gas Company (Danville office) met with Mr. Helm and Mr. Scott, as well as with management personnel from the Danville Fire Department to discuss the incident sequence of events and to correlate an investigative procedure. It was determined at the meeting that the Fire Department would take a portable saw and ladder to the site of the explosion and cut an access hole into the floor of the structure to allow investigators means to safely enter the basement. Mr. John Gentry of Western KY Gas Company advised that he would take photos of all investigative points of concern and make them available to each of the agencies.

When the investigators arrived at the scene of the fire it was evident that the fire had been completely extinguished. The building had obviously undergone over-pressurization that had resulted in the loss of structural integrity of the exterior walls. Ignition of combustible materials accompanied the explosion and additional loss from fire exposure occurred to the structure and its contents. Considerable debris from the blast could be seen in the immediate area and radiant heat exposure damage was verifiable to adjacent structures.

The natural gas meter riser piping located on the east side of the home was damaged, apparently from debris impact and the downstream piping run which interconnects the meter unit to the building piping system appeared to be broken.

When the access opening was completed, investigators entered the basement area via a ladder supplied by the fire department and began evaluating the natural gas piping system.

Case Number FI9703042100RRHM

The natural gas entered the foundation wall via 1 1/4 inch schedule 40 black pipe. Shortly after emergence from the wall it incorporated a tee fitting which enabled a separate 1/2 inch section of copper tubing to convey natural gas to the floor furnace unit. The main branch of the natural gas delivery system continued on via schedule 40 black pipe over to the west side of the basement where it branched off to a water heater unit and the other line returned to the middle of the basement where it made a 90° vertical turn and entered the kitchen area. Each of the branch lines was provided with a manual control valve easily accessible for proper operation. The valves to the water heater and the line entering the kitchen area were both in the open position, as well as the valve for the floor furnace branch. Mr. Gentry took photos of each segment of pipe as investigators assessed the condition of the piping system.

The floor furnace had collapsed downward from its original mounting, but the water heater appeared to be in good condition. The fire and explosion damage was primarily confined to the area of the building above the basement.

After noting the condition of the piping system and appliances in the basement, investigators began to trace the piping run which entered the kitchen. The valve controlling this 1/2 inch steel pipe run was in the open position so it was necessary to verify the integrity of the line. Investigators located where the line should enter the kitchen floor and found an electric range unit positioned immediately adjacent to it. Mr. Scott Smith tilted the electric range so Mr. Helm could clear out the ashes and residue between it and the wall. The pipe was soon located behind the appliance and debris removed from around it. Investigators immediately noticed the pipe was open to the atmosphere with no cap or plug on its' terminus. Mr. Gentry immediately photographed it.

Case Number FI9703042100RRHM

The decision was made to conduct a pneumatic test on this run of pipe from the upstream connection of the manual control valve which would isolate this section of pipe if the valve was closed. Mr. George Teater of Western KY Gas Company disconnected the union located immediately upstream from the valve and connected a test gauge with an aspirating bulb to pump up pressure on the line. When he tried to pump air pressure it wouldn't build up because the line was open-ended. Mr. Scott Smith placed his finger over the opening and it began to build up pressure. When he released it the pressure immediately dropped. Water also blew out of the pipe when he released it. This verified that the piping run provided an unimpeded, direct conduit for natural gas to enter the living area of the house at appliance operating pressure.

This line was previously used to supply natural gas to a range unit that had been replaced with an electric range last year. The line was provided with an adaptor for a flared copper fitting. This piping run should have been capped off when its' use was discontinued, but for unknown reasons was not. The valve which controls this section of pipe has undoubtedly been closed in the past or else this incident would have occurred before now, given equivalent circumstances.

The 1992 edition of NFPA 54/ansi z 223.1 Section 3.82 (a) states: each outlet, including a valve or cock outlet, shall be closed gas tight with a threaded plug or cap immediately after installation and shall be left closed until the gas utilization equipment is connected thereto. When equipment is disconnected from an outlet and the outlet is not to be used again immediately, it shall be closed tight.

Whether this branch line has been capped in the past cannot be verified at this point. Investigators can only presume that the line has been uncapped for an extended period of time.

Case Number FI9703042100RRHM

Maintenance activity on the natural gas-fired appliances prior to the explosion has been verified. NFPA 54, Section 4.2.1. states: before gas is introduced into a system of new gas piping or back into an existing system after being shut off, the entire system shall be inspected to determine that there are no open fittings or ends and that all manual valves at outlets on equipment are closed and all unused valves at outlets are closed and plugged or capped.

An inspection of the system should have indicated an immediate hazard to life and property from this uncapped gas line.

Therefore, the Office of State Fire Marshal has concluded that this explosion/fire occurred as a result of unrestricted natural gas flow from the ½ inch gas delivery piping exiting the kitchen floor. The valve controlling this branch of piping was positioned fully-opened, thus allowing metered pressure of approximately 1/4 psig into the living area of the house



Kentucky Basic Fire Incident Report  
Danville Fire Department

0 New Report

FDID 11049	Inc.-Exp. No. 100055-00	Date 3/04/97	Day of Week Tuesday	Alarm Time 2015	Arrival Time 2017	In Service Time 2335
Type of Situation Found 19 Fire, explosion-unclass			Type of Action Taken 1 Extinguishment		Mutual Aid 3 N/A	
Fixed Property Use 411 One-family dwelling: year round use			Ignition Factor 00 Ign. factor undetermined			
Correct Address 511 SMITH ST.			Zip Code		Census Tract 0000.00	
Occupant Name (Last, First, Mi) LISA BENIDICT			Telephone -000-0000		Room or Apt.	
Owner Name (Last, First, Mi) JOE FRANKEL			Address		Telephone -000-0000	
Method of Alarm From Public 1 Telephone Direct			Inspection District Shift		No. Alarms 2	

Fire Personnel 25	Engines Responded 2	Aerials Responded	Other Vehicles 1
----------------------	------------------------	-------------------	---------------------

Number of Injuries		Number of Fatalities	
Fire Service	Other	Fire Service	Other

Complex	Mobile Property Type	08
No complex	98 Mobile property-not applicable	
Area of Fire Origin	24 Equipment Involved in Ignition	00
Kitchen, cooking area	Undetermined-not reported	
Form of Heat of Ignition	Type of Material Ignited	Form of Material
Heat fr expl-not class	69 Mult types of mat ign	97 Mult form of mat ign
Method of Extinguishment	6 Level of Fire Origin	1 Estimated Loss (\$)
Preconn hose water hydrant	Grade lvl to 9 ft abve	0

Number of Stories	1	Construction Type	6
1 Story		Unprotected ordinary	
Extent of Flame Damage	7	Extent of Smoke Damage	7
Extended beyond struct of origin		Extended beyond struct of origin	
Detector Performance	0	Sprinkler Performance	8
Undetermined-not reported		No equip in room of fire origin	

If Smoke Spread Beyond Room of Origin		
Type Material Generating Smoke	99	Avenue of Smoke Travel
Type of mat-not class		No significant ave of smoke travel
Form of Material Generating Most Smoke		
Type of mat-not appl		98

Mobile Property			
Year Make	Model	Serial Number	License No.

Equipment Involved in Ignition			
Year	Make	Model	Serial Number

Officer In Charge	Name, Position, Assignment	Date
F114 CAPT. B. SEXTON		3/04/97
Member Making Report if Different from Above		Date
F114 CAPT. B. SEXTON		3/04/97

## Kentucky Basic Fire Incident Report

### Remarks

DISPATCHED TO POSSIBLE HOUSE EXPLOSION 511 SMITH ST. ON ARRIVAL FOUND FULLY INVOLVED STRUCTURE WITH EXTENSION TO EXPOSURE. INITIAL SCENE SURVEY FOUND 5 VICTIMS WITH 2ND. & 3RD. DEGREE BURNS, EMS WAS ADVISED. E-12 CREW LAID 250'-3" SUPPLY AND AGGRESSIVLY ATTACKED EXPOSURE WITH 2-1-3/4" HANDLINES. 1-2-1/2 SAFETY LINE WAS PLACED BY E-16 CREW TO EXTINGUISH MAIN BODY OF FIRE. ATTACK CREW ADVISED THAT FIRE WAS FED FROM GAS RISER THAT WAS DAMAGED. ADVISED DISPATCH TO CONTACT W.K.Y.GAS AND K.U. ALSO ADVISED FOR F-111 AND F-1 TO THE SCENE. CREWS WERE ADVISED NOT TO EXTINGUISH GAS FIRE UNTIL GAS WAS TURNED OFF FOR FEAR OF POSS.EXPLOSION FROM ACCUMULATION OF PRODUCT. EXPOSURES SEARCHED FOR FIRE EXTENSION. GAS CO. SHUT OFF GAS, AND ASSISTED WITH REMOVAL OF VEHICLES FROM AROUND EXPLODED STRUCTURE. KY. FIRE MARSHAL OFFICE CONTACTED, F-110. NOTIFIED. INVESTIGATION BEGAN. SEE FIRE MARSHALS REPORT FOR CAUSE & ORIGIN.

CAPT. B. SEXTON

### EQUIPT. DAMAGED

2-50' SECTIONS VINIYL 1-3/4 HOSE (JACKET TORN )  
1-50' SECTION 2-1/2 COTTON ( JACKET BURNED)

## PRESS RELEASE DANVILLE FIRE DEPT.

10:00 AM WEDNESDY MARCH 5,1997

On Tuesday march 4,1997 Danville Central Communications received numerous 911 calls reporting a house on fire at 511 Smith St.after some sort of explosive effect. The first call was received at 8:15 p.m. The first fire units arrived on the scene at 8:17 p.m. At the time of arrival the house was fully invoved in fire and the house adjacent to the east was exposed to direct flame contact.

Also upon arrival five occupantsof the home were discovered in the street suffering from burns. The victims and injuries are listed below.

3 year old male- Christopher Jackson suffered second degree burns to 18% of his body and was transfered to a hospital in Lexington

10 year old female- Kala Benedict suffered second degree burns to 45% of her body and was transferred to a hospital in Lexington

30 year old female- Lisa Benedict suffered second degree burns to 64% of her body and third degree burns to her hands and was transfered to a hospital in Lexington

34 year old female- Lily White suffered second degree burns to 70% of her body and third degree burns to her hands and was transfered to a hospital in Lexington

53 year old female- Helen Benedict suffered second degree burns to 18% of her body including face and hands and remains in Ephraim Mcdowell Regional Medical Center.

Three Danville City fire apparatus were on the scene including two engines and one command vehicle. A total of 25 firefighters responded including off duty personnel and part time firefighters. 6 Danville police officers were on scene to secure the area and control traffic.

Boyle County EMS responded with 4 ambulances with 2 more ambulances reserve. 9 EMT's and & 7 Paramedics responded

3 investigators from the Kentucky State Fire Marshall's office responded , additionally personnel from Western Ky. Gas, Kentucky Utilities and the Danville Water Dept. responded to control utilities.

The cause of this incident remains under investigation.

Explosion and House Fire at  
551 Smith Street  
04 March 1997

On 04 March 1997, at a little past 8:10 pm, an explosion occurred in a rental single family dwelling located at 511 Smith Street in Danville. At the time of the explosion, the house was occupied by the tenant, as well as several family members. The explosion appeared to be a low order explosion, pushing the two side exterior walls out, allowing the roof to drop in the home. Houses adjoining this house suffered damage from flying debris as well as from radiant heat and direct flame contact damage.

Four persons were sent to the University of Kentucky Medical Center in Lexington for treatment; a fifth victim, Ms Helen Benedict, was taken to Ephraim McDowell Regional Medical Center in Danville for treatment. At approximately 9:55 pm, a brief interview was made with Ms Helen Benedict regarding the explosion and the events leading up to the incident; Ms Benedict appeared to be conscious and responsive at the time of the interview, conducted by Mike Thomas, Fire Marshal.

Ms Helen Benedict indicated she was the mother of the lessee, Ms Lisa Benedict. She indicated that the day of the incident, there had been problems associated with the gas-fired furnace and water heater, located in the basement of the house, along with associated odor of natural gas inside the home. She said that her daughter had contacted the landlord, Mr. Joseph Frankel, Jr., regarding the problems. According to Helen Benedict, Mr. Frankel contacted a plumber to work on the water heater. The plumber was working in the basement at the time Ms Helen Benedict arrived at the house, at approximately 1:40 pm the day of the incident. According to Helen, he was there to fix a gas leak around the water heater. Helen said that the plumber told Lisa that she would now have hot water available at around this time.

At around 2:30 pm, a representative from Western Kentucky Gas Co., described by Helen Benedict as a "little black man", came to the residence. Helen said he went down into the basement several times regarding the furnace and water heater. Helen said the WKG personnel told Lisa that the valve for the water heater had been replaced, but that he could not get the pilot light to stay lit. According to Helen, he told Lisa that he had shut the gas off; Helen Benedict indicated she thought that meant the gas was turned off at the meter. She said the WKG employee said to have the furnace repaired and that WKG would send someone to turn the furnace on afterwards. Helen said that Mr. Frankel was contacted, and said that someone would be sent Wednesday morning to make these repairs.

Helen said that sometime later, they noticed the gas smell in the house again. Helen said she tried to convince Lisa to come to her house to spend the night, but that Lisa would only agree to send the children. During this time, laundry was being done in a rear room in the house, according to Ms Benedict. According to Helen Benedict, the odor of gas continued to grow stronger, and some neighbors indicated to her that they could smell gas as well. At some point, Helen Benedict left and returned to the house and continued working on the laundry.

At a little past eight o'clock that evening, Helen Benedict said she went to the back room of the house to pull towels from the dryer. She said she opened the dryer door and began to fold the first towel when the explosion occurred. (At the time of this interview, Ms Helen Benedict was in the hospital emergency room, with her hair singed around her face, and with burns on the face and nose.) Helen didn't recall how she got outside the house, and had vague recollections of what occurred after the explosion.

At the scene after the explosion, firefighters found the house involved in fire, with a gas-fueled fire occurring on the east side of the house, where the gas meter was located. The east and west walls had blown out to the sides, with the main central wall of the house standing but heavily burned. The front porch columns and roof had collapsed. The clothes dryer was found several feet away from the house in the back yard; the appliance was an electric dryer. The roof of the house had collapsed onto the floor, although some wall sections remained upright. Fire occurred mainly on the first floor area, with little appreciable extension into the

basement level. The foundation appeared to be intact, as did the mud sill plate and the floor joists. It appears that the side walls were knocked from the floor decking to the outside for 2 to 3 feet, where they then fell, landing on cars on either side of the house. Because of the fire burning between the flooring and the roof deck, extinguishing the isolated pockets of fire was difficult, and required some assistance from a local backhoe operator.

Because of the nature of the incident and the injuries, the State Fire Marshal's office was contacted regarding a fire investigation. The investigation was continued the following morning, with representatives from the State Fire Marshal, Western Kentucky Gas, and local fire department officers.

The only gas-fired appliances in the house were a water heater and a furnace, both located in the basement. The clothes dryer, initially reported by Helen Benedict as being a gas-fired appliance, was in fact an electric dryer. The cooking range in the kitchen was also an electric appliance. In the basement, the gas piping entered through an opening in the east foundation wall. There, the piping was reduced in size, where it split into two individual lines, each with a shut-off valve. One line, which was made of copper tubing, ran to the gas-fired furnace; the other line ran over to the west foundation wall. At that point, the line divided in two again, with each branch being equipped with a gas shut-off valve. The line going towards the rear of the house served the gas-fired water heater. The other line went to the kitchen, behind the electric range. This line apparently was installed to serve a gas range. The line was uncovered by Jim Helm of the State Fire Marshal's office; the unused line was not capped at the time of the investigation. In addition, the shut-off valve serving this line was found to be in an open position at the time of the investigation.

It appears that this valve was opened at some point, possibly by a person thinking the line served the gas furnace. With no cap on the end of the line, gas would have escaped into the house for some time, until such time as an ignition source was found. (At the hospital, a family member said that Lisa made a statement that she had just lit a cigarette when the explosion occurred; Helen said that the explosion occurred shortly after opening the dryer.)

Mike Thomas, Fire Marshal  
City of Danville Fire Department

Photo #1 - Shows Jim Helm, State Fire Marshal (red helmet) and representative from Public Services Commission (white helmet). Gas valve serving kitchen gas outlet is visible to the left of the white helmet, and appears to be in an open position. Valve was not touched or reset at any time prior to this photograph. Photo by Mike Thomas, 03/05/97, before noon.

Photo #2 - Arrow added to photo after developing for detail. Indicated location of uncapped gas outlet in kitchen on first floor of house, with electric range in foreground, wall board material (gypsum lath board with plaster finish) in background. Outlet was uncovered by Jim Helm, SFM, shown in condition found. Photo by Mike Thomas, 03.05/97.

Photo #3 shows Jim Helm, SFM, indicating the uncapped outlet and a portion of the gas line found behind the electric range in the house. Tests done after this photo indicated that the line was open and the shut-off valve open as well at the time of the explosion. Photo by Mike Thomas, 03/05/97.

WAG

\*\*\*\*\*  
\*\*\* REQUESTOR: DCOLLIER - COLLIER, DANNY OPERATIONS \*\*\*  
\*\*\*\*\*  
\*\*\* S Y S M F I L E P R I N T \*\*\*

FILE ID: 571890 FOLDER ID: INCIDENT DATE: 03/07/97 TIME: 08:49pm  
AUTHOR: - REYNOLDS, LARRY  
SUBJECT: DANVILLE INCIDENT REPORT

DANVILLE DISTRICT EMERGENCY INCIDENT REPORT

DATE 03 07 97 TOWN: DANVILLE REPORT BY: LARRY REYNOLDS  
LOCATION/ADDRESS: 511 SMITH WHO CALLED? DISPATCHING  
BRIEF DESCRIPTION OF INCIDENT: EXPLOSION/FIRE AT 511 SMITH.

3RD PARTY DAMAGE? . ESTIMATED DAMAGE VALUE:\$ N/A  
DAMAGING PARTY: .  
CLASS OF EMERGENCY: 1 NUMBER CUSTOMERS INVOLVED: 2  
TIME CALL RECEIVED: 8:29PM DATE/TIME CLEARED: 3/7/97 8:57PM  
DATE/TIME SERVICE RESTORED: SERVICE NOT RESTORED, STOP PLUGED OFF.

<u>TIME</u>	<u>ACTIVITY</u>
<u>8:29PM</u>	<u>STEPHONE RECEIVED CALL FROM DISPATCHING CONCERNING A FIRE AND EXPLOSION AT 511 SMITH ST, DANVILLE.</u>
<u>8:32PM</u>	<u>STEPHONE NOTIFIED SUPERVISOR LARRY REYNOLDS.</u>
<u>8:35PM</u>	<u>LARRY NOTIFIED DISTRICT MANAGER DANNY COLLIER.</u>
<u>8:36PM</u>	<u>STEPHONE ARRIVED AT 511 SMITH ST.</u>
<u>8:42PM</u>	<u>LARRY ARRIVED AT 511 SMITH.</u>
<u>8:48PM</u>	<u>LARRY CALLED DANNY REQUESTING A C&amp;M CREW.</u>

8:50PM      DANNY CALLED DON LANE.  
8:57PM      THE GAS WAS SHUT OFF BY TURNING OFF A STOP AT RISER.  
9:00PM      DANNY COLLIER ARRIVED.  
9:25PM      C&M ARRIVED. DON LANE AND HERSHEL LAWHORN.  
9:45 PM      C&M EQUIPMENT ARRIVED. CHARLIE BURTON  
10:00PM      DECISION WAS MADE NOT TO KILL SERVICE TO 511 SMITH DUE TO NO  
GAS LEAKAGE UNDERGROUND. ALSO TO CLOSE TO OPEN FLAME, NOT  
ABLE TO REMOVE SERVICE CAP. BACKHOE USED TO HELP FIRE DEPT.  
REMOVE CARS IN THE WAY AND SPREAD OUT BURNING DEBRIS.

DANVILLE DISTRICT EMERGENCY INCIDENT REPORT  
SUMMARY

DEATH OR INJURIES: INJURIES 5  
PROPERTY DAMAGE: COMPANY \$ \_\_\_\_\_ N/A OTHERS \$ \_\_\_\_\_ N/A  
COMPANY EXPENSE IN LABOR \$ \_\_\_\_\_ N/A MATERIALS \$ \_\_\_\_\_ NONE  
TRANSPORTATION \$ \_\_\_\_\_ N/A GAS LOSS \$ \_\_\_\_\_ NONE  
TOTAL EXPENSES \$ \_\_\_\_\_ N/A TO BE BILLED NO YES/NO

BILL TO: NO

ADDRESS: NONE

EMPLOYEES INVOLVED: 6      SUPERVISOR IN CHARGE: COLLIER/LANE/REYNOLDS

SURVEYS CONDUCTED: F.I. SURVEY      DIAGRAM DRAWN YES

BY WHOM: STEPHONE WILKI      RESULTS: NO LEAKAGE

TIME DISTRICT MANAGER NOTIFIED: 8:35PM      BY WHOM: LARRY REYNOLDS

TIME OPR. COORDINATOR NOTIFIED: 9:12PM BY WHOM: DANNY COLLIER

PSC NOTIFIED? YES WHO? SCOTT SMITH BY WHOM? MIKE SCHMIDT

BUD CALL MADE? NO WHO? . BY WHOM? .

NEWS MEDIA INVOLVED? YES WHAT MEDIA? T.V. NEWSPAPER

FIRE/POLICE INVOLVED? YES WHO? FIRE AND POLICE, DANVILLE

EVACUATION: YES WHAT AREA? THREE HOUSES BY FIRE DEPT.

COMMENTS: \_

Sent to: DCOLLIER - COLLIER, DANNY (to)  
GENTRY - GENTRY, JOHN (to)  
LANE - LANE, DON (to)  
STEARNS - Stearns P.E., Douglas E. (to)



NEPA  
54  
1980

WNI  
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RECEIVED

MAY 11 1981

DIVISION OF UTILITY  
ENGINEERING & SERVICES

NATIONAL FUEL GAS  
CODE

An American National Standard

Secretariats

American Gas Association  
(Administrative)  
1515 Wilson Boulevard, Arlington, VA 22209

National Fire Protection Association, Inc.  
Batterymarch Park, Quincy, MA 02269

**4.2 Leakage Check After Gas Turn On.**

**4.2.1 Before Turning Gas On:** Before gas is turned into a system of new gas piping, or back into an existing system after being shut off, the entire system shall be checked to determine that there are no open fittings or ends and that all valves at outlets and equipment are closed.

**4.2.2 Check for Leakage:** Immediately after turning on the gas, the piping system shall be checked to ascertain that no gas is escaping. (See Appendix D for suggested method.)

If leakage is indicated, the gas supply shall be shut off until the necessary repairs have been made.

**4.2.3 Placing Equipment in Operation:** Gas utilization equipment may be placed in operation after the piping system has been tested and determined to be free of leakage and purged in accordance with 4.3.2.

**4.3 Purging.**

The processes of voiding a gas pipe line of fuel gas and replacing the fuel gas with air, or charging a gas pipe line that is full of air with fuel gas, require that a significant amount of combustible mixture not be developed within the pipe line or released within a confined space.

**4.3.1 Removal from Service:** When gas piping is to be opened for servicing, addition or modification, the section to be worked on shall be turned off from the gas supply at the nearest convenient point, and the line pressure vented to the outdoors.

If this section exceeds the lengths shown in Table III, the remaining gas shall be displaced with an inert gas.

**Table III**

**Length of Gas Line Requiring Purging for Servicing or Modification**

<u>Nominal Pipe Size, Inches</u>	<u>Min. Length of Piping Requiring Purging</u>
2½	50 feet
3	30 feet
4	15 feet
6	10 feet
8 or larger	Any length

INCIDENT NBR:00278 DATE REPORTED: 3/ 4/97 21:55 INCIDENT DATE: 3/ 4/97 20:25  
UTILITY ID: 6600 WESTERN KENTUCKY GAS COMPANY

CALLER INFORMATION

NAME:Mike Schmidt, Engineer  
ADR1:Western Kentucky Gas (WKG)  
ADR2:2401 New Hartford Road  
CITY:Owensboro STATE:KY42303  
HOME PHONE: WORK:(502)685-8150

COST OF DAMAGES  
STRUCTURE: 50,000.00  
GAS LOSS : 0.00

LOCATION OF INCIDENT

NAME:Lisa Benedict  
ADR1:511 Smith Street  
ADR2:  
CITY:Danville STATE:KY40422  
CNTY:BOYLE PHONE:

EVENTS:  
A EXPLOSION  
C FIRE

OTHER EVENT

CAUSE CODE: D OTHER

CUSTOMERS OUT OF SERVICE: 2  
SERVICE RESUMED DATE: 3/ 5/97 09:00

REPORTABLE UNDER KY OR FED REG?F  
CRITERIA:ignition/>\$50,000 damage

INSPECTION REQUIRED?Y INSPECTION NBR:199706200

ENTRY DATE: 6/ 9/97

DESCRIPTION OF INCIDENT:

Gas explosion and fire at 511 Smith St. 5 victims taken to hospital. 911 dispatcher notified WKG. Houses on each side of 511 Smith were damaged along with 4 vehicles.

CORRECTIVE ACTIONS:

Gas turned off at 509 & 511 Smith. Under investigation of State Fire Marshal's office, PSC, & WKG. Report sent to Commission along with copies of fire marshal's, fire dept.'s, WKG's & Gas Safety Branch (Engineering).

VICTIMS:

Lisa Benedict, 511 Smith Street, Danville, KY 40422 I INJURED  
Christopher Jackson, Same address I INJURED  
Kala Benedict, Same address I INJURED  
Lily White, Same address I INJURED  
Helen Benedict, Same address (visiting) I INJURED

Western Kentucky Gas Company



April 3, 1997

RECEIVED

Chief Engineer, Gas Section  
Mr. Scott Smith  
Public Service Commission  
P.O. Box 615  
Frankfort, KY 40602

APR 04 1997

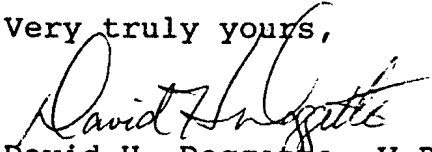
DIVISION OF UTILITY  
ENGINEERING & SERVICES

Dear Mr. Smith:

The attached report is in response to the incident on March 4, 1997, which occurred at 511 Smith Street, Danville, Kentucky.

If you have any questions concerning this report, please do not hesitate to call me at (502) 685-8037.

Very truly yours,

  
David H. Doggette, V.P.  
Engineering & Measurement

DHD:ck  
Attachment

cc: Earl Fischer	Roger Griffith
Roy Pearson	Danny Collier
Jay Carnahan	Kevin Dobbs
Lewis Binswanger	Steve Bittel

INCIDENT REPORT: WESTERN KENTUCKY GAS COMPANY

GENERAL INCIDENT INFORMATION

Date: 3/4/97  
Time: 7:25 PM, CDT  
Location: 511 Smith Street, Danville, KY  
Injuries: 5  
Deaths: None

Incident Cause & Description

On the above date and time, WKG received notification from a 911 dispatcher in regard to a house fire at the stated address in Danville, KY. The cause of the fire was unknown at the time and WKG was dispatched to the scene. The cause of this incident is still under investigation by the Company, as well as the State Fire Marshal. The City Fire Marshal has issued a preliminary report.

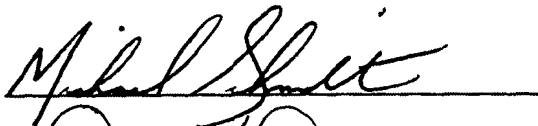
Following further investigation, five people were reported to be injured and taken to area hospitals. The houses on each side of the 511 Smith Street address were also reported to have fire damage along with four vehicles. WKG shut off gas service to houses at both 509 and 511 Smith Street. Both services remain turned off at the present time.

Notice to the Kentucky Public Service Commission:

This incident was reported telephonically to Mr. Scott Smith of the KPSC at 8:50 PM on March 4, 1997.

Submitted:

Michael Schmidt  
Engineer



David Doggette  
V.P. Engr. & Meas.



Scott

# House owners, gas company sued over fire

~~4770~~ KY 1190  
By Evelyn Gander  
Staff Writer

Four of the five victims who were burned when a Smith Street house exploded March 4 filed a civil suit Wednesday against the owners and Western Kentucky Gas Co.

In their complaint filed in Boyle Circuit Court, Lisa Benedict, her children, Kala Benedict and Christopher Jackson, and her mother, Helen Benedict, claim negligence against Joseph N. Frankel III and Marsha Frankel, owners of the property at 511 Smith St., and against the gas company. For the negligence claims, they ask for unspecified compensatory damages.

They are also suing the defendants for "wanton, reckless, malicious and offensive conduct" in regard to the incident and ask for unspecified punitive damages.

At press time, attempts to reach the Frankels were unsuccessful. Tom Higdon, manager of public affairs for Western Kentucky Gas Co., said this morning that the company only recently had received a copy of the suit and had no comment concerning it.

Danville Fire Chief Wendell Boyd last week directed the investigation on the cause of

the explosion that happened about 8:15 p.m. Tuesday. An open valve on a basement gas line leading to the kitchen where the line was uncapped allowed gas to build up. The kitchen line would have connected to a gas stove. The residence had an electric stove.

Released last Friday, Boyd's report concluded, "It appears that this valve (in the gas line leading to the kitchen) was opened at some point, possibly by a person thinking the line served the gas furnace. With no cap on the end of the line, gas would have escaped into the house for some time, until such time as an ignition source was found. (At the hospital, a family member said that Lisa Benedict made a statement that she had just lit a cigarette when the explosion occurred ...)."

Lisa Benedict was renting the property from the Frankels, according to the complaint, and lived there with her children. Her mother, Helen Benedict, was visiting at the time of the incident.

(Also at the house, but not a plaintiff in the suit, was Lilly White, Lisa Benedict's sister.)

(Lilly White, 34, Lisa Benedict, 30, Kala Benedict,

(Continued On Page A10.)

MAR 14 1957

ADVOCATE-MESSENGER

Circ: 11,521

Party:

Dist: M-F/SUN.

County: BOYLE, KY

Pop: 26,300

# House owners, gas company sued in fire

(Continued From Page A1.)

10, and Christopher Jackson, 3, were listed in serious condition this morning at the University of Kentucky Chandler Medical Center in Lexington. Helen Benedict was treated at Ephraim McDowell Regional Medical Center following the accident and discharged Wednesday.)

In their suit, the plaintiffs claim "That the range provided by the Defendants, Joseph N. Frankel, III, and Marsha Frankel, was an electric range which resulted in a non-capped gas line meant to service a gas range which constitutes the negligence of the ... Defendants and their failure to maintain said residence ..."

They also claim "That the defendant, Western Gas Company, was negligent in the maintenance, installation, servicing, construction, placement and inspection of the gas lines leading to and through the residence ..."

The compensatory damages they ask for in the complaint "to compensate them for

the destruction of their personal property and ... medical expenses now and in the future; extensive and far reaching physical pain and ... mental and emotional suffering ...; the substantial and permanent disfigurement of their bodies; lost wages ...; the diminution of their... ability to earn money in the future; and the ... diminution in their enjoyment of life."

The punitive damages they ask for "...to punish said Defendants for their outrageous conduct and to discourage said Defendants and others from similar conduct in the future."

Also filed Wednesday was an order signed by Boyle Circuit Judge Stephen Shewmaker requiring that the defendants or their agents return to the Danville Fire Department "...all items of evidence taken by them and/or their agents from ... 511 Smith Street."

Filed by attorney Ephraim Helton, the civil suit asks for a jury trial.

(Information in a civil suit gives only one side.)

NOTICE: This report is required by 49 CFR Part 191. Failure to report can result in a civil penalty not to exceed \$1,000 for each violation. Form Approved for each day that such violation persists except that the maximum civil penalty shall not exceed \$200,000 as provided in 49 USC 1678. OMB No. 2137-0522

**INCIDENT REPORT - GAS DISTRIBUTION SYSTEM**

Report Date 4/3/1997  
 No. 379002  
 (RSPA)  
 APR 10 1997

**PART 1 - GENERAL REPORT INFORMATION**

*\*SEE INSTRUCTIONS\**

1. a. Operator's 5 digit Identification No. 2,2,4,7,6

b. Name of Operator Western Kentucky Gas Company

c. 2401 New Hartford Road  
 Number and Street

d. Owensboro, KY 42303  
 City, County, State and Zip Code

2. Location of Incident

a. 511 Smith Street  
 Number and Street

b. Danville - Boyle County  
 City and County

c. KY 40422  
 State and Zip Code

d. Class Location  1  2  3  4

e. Incident on Federal Land  Yes  No

3. Time and Date of Incident  
1: 9: 25 hour 0: 3 mo 0: 4 day 9: 7 yr

4. Reason for Reporting

Fatality Number 1 1 1 persons

Injury requiring inpatient hospitalization Number 0: 0: 5 persons

Property damage/loss Estimate \$ \_\_\_\_\_

Operator Judgment/Emergency Action

Supplemental Report

5. Elapsed time until area was made safe 0: 0 hr 3: 2 mn

6. Telephonic Report:  
0: 3 mo 0: 4 day 9: 7 yr

7. a. Estimated pressure at point and time of incident (PSIG) 0.25

b. Maximum allowable operating pressure (MAOP) (PSIG) 60

c. MAOP established by:  
 (1) Test pressure 100 (PSIG)  
 (2) 49 CFR §192.619(a)(3)

**PART 2 - APPARENT CAUSE**

Corrosion (Continue in Part A)

Damage by Outside Forces (Continue in Part B)

Construction/Operating Error (Continue in Part C)

Other See Part D

Accidentally caused by operator (Continue in Parts B and/or C)

**PART 3 - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE INCIDENT** (Attach additional sheet(s) as necessary)

**PART 4 - ORIGIN OF THE INCIDENT** Not Applicable (N/A) - No System Components Involved

1. Part of System Where Incident Occurred

Main  Meter Set Assembly

Service Line  Other N/A - No System Components Involved

3. Material Involved:

Steel  Cast iron

Polyethylene plastic  Other plastic: N/A - Operator's Piping Not Involved

Other \_\_\_\_\_

NPS (Nominal Pipe Size) 1 1/2 in. Wall Thickness 1 1/2 in.

4. Specification N/A Manufacturer N/A Year Manufactured 1 1/2 Year installed 1 1/2

2. Component Which Failed

a. Part

Body of Pipe  Valve

Joint, type \_\_\_\_\_  Regulator/meter

Fitting  Weld, specify girth, longitudinal, fillet

Drip/Riser  Other N/A

**PART 5 - ENVIRONMENT**

Area of Incident

Within/Under Building  Under Pavement  Above Ground  Under Ground or Under Water  Other \_\_\_\_\_

**PART 6 - PREPARER AND AUTHORIZED SIGNATURE**

David Doggette, V.P. Engineering  
 (type or print) Preparer's Name and Title

502 / 685-8037  
 Telephone Number

David Doggette  
 Authorized Signature and Date

502 / 685-8037  
 Telephone Number



**PART A - CORROSION**

1. Where did the corrosion occur?  
 Internally  
 Externally

2. Visual Description  
 Localized Pitting  
 General Corrosion  
 Other \_\_\_\_\_

3. Cause  
 Galvanic  
 Other \_\_\_\_\_

4. Pipe Coating Information  
 Bare  Coated

5. Was corroded part of pipeline considered to be under cathodic protection prior to discovering incident?  
 Yes Year protection started     /    /      
 No

6. Additional Information

**PART B - DAMAGE BY OUTSIDE FORCES**

1. Primary Cause of Incident  
 Damage resulted from action of operator or his agent  
 Damage resulted from action by outside party/third party  
 Damage by earth movement  
 Subsidence  
 Landslide/Washout  
 Frost  
 Other \_\_\_\_\_  
 Damage by lightning or fire

2. Locating information (for damage resulting from action of outside party/third party)  
 a. Did operator get prior notification that equipment would be used in the area?  
 Yes Date received     /    /     mo     /    /     day     /    /     yr  
 No  
 b. Was pipeline location marked either as a result of notification or by markers already in place?  
 Yes  Permanent Markers  Temporary Stakes  Other \_\_\_\_\_  
 No  
 c. Does Statute or ordinance require the outside party to determine whether underground facility(ies) exist?  
 Yes  
 No

3. Additional Information

**PART C - CONSTRUCTION DEFECT**

1. Cause  
 Poor Workmanship during Construction  
 Physical Damage During Construction  
 Operating Procedure Inappropriate  
 Error in Operating Procedure Application  
 Other \_\_\_\_\_

2. Additional Information

**PART D - OTHER**

Brief Description: At approximately 1925, 03/04/97 CDT WKG received notification from a 911 dispatcher regarding a house fire at the stated address in Danville, Kentucky. The cause of the fire was unknown at the time and WKG was dispatched to the scene. The cause of this incident is still under investigation by the Company, as well as the State Fire Marshal. The City Fire Marshal has issued a preliminary report.

Five people were reported to be injured and taken to area hospitals. The houses on each side of 511 Smith Street were also reported to have fire damage, along with four vehicles. WKG shut off gas service to houses at 509 and 511 Smith Street.

Incident No. #278

PUBLIC SERVICE COMMISSION  
INCIDENT REPORT FORM

Utility ID # \_\_\_\_\_ Date of Call 3/4/97

Company Involved W. Ky Time of Call 9:55 P.M.

Caller: Name Mike ~~Smith~~ Schmidt Title \_\_\_\_\_

Address \_\_\_\_\_ Phone \_\_\_\_\_

Date of Incident 3/4/97 Time of Incident 7:25 P.C.S.T. Location of Incident

(include county) Boyle Co - Danville - 517 Smith St.

Did Incident Cause: Fatality \_\_\_\_\_ Injuries 5

Names of Injured or Fatalities: \_\_\_\_\_

Estimated Cost of Damages: (Include gas loss and structural loss.)

Did the following occur:

A. Explosion  B. Blowing Gas \_\_\_\_\_ C. Fire  D. Evacuation \_\_\_\_\_

Description & Possible Cause of Incident: Evid. & Destroyed House & 4 Ver  
Houses on ea. Side Damaged - Fire Dept. Believes it was Nat. G.

# Customers Out of Service \_\_\_\_\_ Time Normal Service Resumed \_\_\_\_\_

Corrective Actions Taken Renters Complained to landlord about Furn  
but it was not fixed

Is this incident reportable under 807 KAR 5:027? Yes  No \_\_\_\_\_

Check Which Regs. Apply: KENTUCKY  / FEDERAL

Under what criteria is this incident reportable? Loi. & 50,000 +

Is Follow-up Action Required by Company? \_\_\_\_\_

Cause Code:

- A. Corrosion \_\_\_\_\_
- B. Third Party Damage \_\_\_\_\_
- C. Construction \_\_\_\_\_
- D. Other \_\_\_\_\_
- E. Suicide \_\_\_\_\_
- F. Undetermined

SIGNATURE Scott Smith TITLE \_\_\_\_\_

DATE 3/4/97 REVISED: March 20, 1995