COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

HICKMAN MUNICIPAL GAS SYSTEM	)	
	)	
_____	)	CASE NO. 96-049
	)	
ALLEGED FAILURE TO COMPLY WITH COMMISSION REGULATIONS	)	

O R D E R

On January 3, 1996, Commission Gas Pipeline Safety Investigators met with the Director of Public Works for the city of Hickman, Kentucky to continue the investigation of a gas explosion which occurred at the Indian Hills Village Apartments in Hickman, Kentucky on November 14, 1995. The city of Hickman's natural gas distribution system was the source of natural gas to the apartment complex. Hickman's municipal gas system is subject to the safety jurisdiction of this Commission pursuant to KRS 278.495(2) and the Commission's gas safety regulations 807 KAR 5:022 and 5:023, and Hickman is subject to civil penalties for violations pursuant to KRS 278.992.

On November 13, 1995, the city of Hickman received a request to turn gas on in several vacant apartments in the Indian Hills Village Apartments. Mr. Jackie Duncan, an employee of the city, responded and initiated gas service to twelve units. Mr. Duncan then advised the apartment manager and a maintenance employee that gas service was on and received assurances that the apartments would be checked. Mr. Duncan did not observe if gas was passing

through the meter when all appliances were turned off, a violation of 807 KAR 5:022, Section 9(17)(a)(3).

At 11:50 p.m. John Amberg, Director of Public Works for the city of Hickman, was contacted by the Hickman Police regarding a gas leak at Indian Hills Village Apartments, Apartment B-32. Mr. Amberg and Officer Kevin Griffin responded and found a leak in Apartment B-31. Gas was found to be escaping from an uncapped line for a stove. At the time this leak was corrected, Mr. Amberg was unaware that gas service had been turned on in eleven other units by Mr. Duncan.

At approximately 5:32 a.m. on November 14, 1995 an explosion occurred in Apartment A-44 and was reported to the Hickman Fire Department. Both Mr. Amberg and Mr. Duncan responded as members of the local volunteer fire department and it was during this response that Mr. Amberg learned that Mr. Duncan had connected eleven other units in the apartment complex the prior evening. Gas was then disconnected at the other units.

Later that morning, Mr. Amberg met with the apartment manager and maintenance employee to determine what actions had been taken by them after Mr. Duncan turned the gas on in the twelve apartments on November 13, 1995. Mr. Amberg was informed that not all the units had been checked after the gas was turned on by Mr. Duncan.

Commission Investigators reviewed Hickman's Operating and Maintenance Plan and determined it contained no instructions for employees regarding operating and maintenance procedures for routine connection of customer services as required by 807 KAR

5:022, Section 13(3). Hickman did not have established procedures in place to investigate failures on its system as required by 807 KAR 5:022, Section 13(10). Hickman did not have an adequate emergency plan in place at the time of the incident as required by 807 KAR 5:022, Section 13(9)(a). 807 KAR 5:023, Section 5(2), and Hickman City Ordinance No. 92-5, Section 3, require that the operator conduct a drug screening of its employee, Mr. Duncan, within 32 hours after the incident. Hickman City Ordinance No. 92-5, Section 3, requires the employee be tested within 24 hours of the incident. No evidence was found to show that drug testing on this employee took place.

From the facts alleged, the Commission finds that a prima facie showing has been made that the city of Hickman has violated the above-cited regulations in it failure to check for leaks after gas service was initiated; its failure to have an adequate Operating and Maintenance Plan; its failure to develop adequate procedures to investigate failures on its system; its failure to have an emergency plan in place; and its failure to conduct a drug test on its employee Mr. Duncan. KRS 278.992 provides that any person who violates any Commission regulation governing the safety of gas pipeline facilities shall be subject to a civil penalty not to exceed $10,000 for each violation for each day the violation persisted, not to exceed $500,000 for any related series of violations.

IT IS THEREFORE ORDERED that:

1. Hickman shall appear before the Commission on May 9, 1996, 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, if any it can, why civil fines should not be assessed for the pipeline safety violations noted herein.

2. Hickman shall file within 7 days of the date of this Order, a written response to the Commission Inspection Report contained in the Appendix.

3. In lieu of its appearance at the formal hearing, Hickman may, by appropriate motion filed within 10 days of this Order, request an informal conference be held for the purpose of addressing the violations noted herein.

Done at Frankfort, Kentucky, this 15th day of March, 1996.

PUBLIC SERVICE COMMISSION

Linda K Breathitt
Chairman

Vice Chairman

Robert M. Davis
Commissioner

ATTEST:

Don Mills
Executive Director

APPENDIX

AN APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 96-049 DATED MARCH 15, 1996

COMMONWEALTH OF KENTUCKY
PUBLIC SERVICE COMMISSION
730 SCHENKEL LANE
POST OFFICE BOX 615
FRANKFORT, KY. 40602
(502) 564-3940

January 12, 1996

Mr. John Amberg
Director of Public Works
City of Hickman Municipal Gas System
P. O. 230
Hickman, KY 42050-0230

Dear Mr. Amberg:

Enclosed for your information is the report of the incident which occurred on November 14, 1995 in Hickman, Kentucky.

Please respond to this report outlining a correction schedule of the cited deficiencies for Commission approval by February 9, 1996.

If you have any questions regarding this incident report or need additional information, please contact Michael C. Nantz at (502) 564-3940.

Sincerely,

E. Scott Smith, Manager
Gas Pipeline Safety Branch

ESS:MCN:dcp
ISR9601000/Incident #223

Enclosures

cc: Don Mills, KY PSC

COMMONWEALTH OF KENTUCKY
PUBLIC SERVICE COMMISSION

INCIDENT REPORT

CITY OF HICKMAN MUNICIPAL GAS SYSTEM
Hickman, Kentucky

January 12, 1996

BRIEF

On November 14, 1995, at approximately 5:32 a.m., C.S.T., a gas explosion occurred at the Indian Hills Village Apartments in Hickman, Kentucky. The apartment complex received natural gas service from the City of Hickman Municipal Gas System ("Hickman"). This investigation was conducted in accordance with the Public Service Commission's ("PSC") policy of inspecting all local gas distribution companies under its jurisdiction. Natural gas operators are jurisdictional to the PSC under KRS 278.040 and also through a 5(a) Agreement with the United States Department of Transportation, Office of Pipeline Safety, for the enforcement of the Natural Gas Pipeline Safety Act of 1968. The gas explosion occurred when an open gas line inside a vacant apartment ignited. The ignition source at the time of this report is undetermined. The explosion damaged an eight-unit apartment dwelling rendering it uninhabitable. There were no fatalities or injuries.

INSPECTION

On January 3, 1996, I met with Mr. John Amberg, Director of Public Works for Hickman, to continue the investigation of the incident. According to statements by Mr. Amberg and Mr. Jackie Duncan, an employee of Hickman, the following narrative summarizes the incident:

On November 13, 1995, Hickman received a request to turn gas on in various vacant apartments in the Indian Hills Village apartments. Mr. Duncan responded and turned the gas on in twelve apartments. After completing this work, Mr. Duncan reported to the apartment manager and maintenance man and received assurance that they would check the apartments. Mr. Duncan did not make the required inspection to assure that no gas leaks were present before leaving the premises.

Later that evening, at 11:50 p.m., C.S.T., Mr. Amberg received a call from the Hickman Police dispatcher of a gas leak reported at Indian Hills Village, Apartment B-32. Mr. Amberg responded with Officer Kevin Griffin of the Hickman Police Department. Upon investigation, the leak was found in Apartment B-31. A gas line, where the cook stove should have been connected, was uncapped and gas was escaping. Mr. Amberg corrected the situation at this location, but at this time was unaware that Mr. Duncan had also turned on eleven other apartments earlier that evening. No other actions were taken at this time.

At approximately 5:32 a.m., C.S.T., on November 14, 1995, an explosion was reported to the City of Hickman Fire Department. The location was Apartment A-44 of the Indian Village Apartments. Mr. Amberg and Mr. Duncan both responded as members of the local volunteer fire department. At this time, Mr. Amberg learned of the other eleven locations in the complex that Mr. Duncan had turned on

earlier. Apartment A-44 was one of the units turned on that previous evening. Actions were then taken to turn off the other locations in the complex until the units could be checked. Later that morning, Mr. Amberg met with the Apartment Manager and Maintenance Personnel to determine what actions had been taken after the gas was turned on at the various locations. Mr. Amberg was informed that not all apartments had been checked.

FINDINGS

1. Hickman's Operating and Maintenance Plan was found to be inadequate in that no customer gas turn-on procedures were available for gas employee reference, 807 KAR 5:022, Section 13(3)(a).

2. Operator did not make the required inspection to assure that no gas leaks were present before serving customer, 807 KAR 5:022, Section 9(17)(a)(3).

3. Operator did not have procedures in place to investigate failures, 807 KAR 5:022, Section 13(10).

4. Operator did not drug test Mr. Duncan within 32 hours after the incident, 807 KAR 5:023, Section 5(2); City of Hickman Ordinance Number 92-5, Section 3.

5. Operator did not have an adequate Emergency Plan at the time of the incident, 807 KAR 5:022, Section 13(9)(a).

RECOMMENDATIONS

It is recommended that Hickman:

1. Develop an Operating and Maintenance Plan in compliance with regulations. Special attention should be given to procedures involving day-to-day operations.

2. Develop procedures to assure that an inspection will be made regarding the integrity of the customer's facilities before gas service is afforded the customer.

3. Develop procedures to investigate failures in accordance with prescribed regulations.

4. Follow procedures regarding City of Hickman's Drug Testing policies.

5. Develop an Emergency Plan to comply with regulatory requirements. Hold meetings with all gas system personnel and provide copies to assure newly-adopted operating procedures and the Emergency Plan are understood.

It is also recommended that Hickman provide a schedule for Commission approval of its proposed actions to comply with Recommendation Nos. 1-5 by February 9, 1996.

It is further recommended that the Commission consider action against Hickman in accordance with KRS 278.992.

Respectfully submitted,

Michael C. Nantz
Gas Utility Investigator

MCN/dcp
ISR9601000/INCIDENT #223

INCIDENT NBR:00223 DATE REPORTED:11/14/95 11:20 INCIDENT DATE:11/14/95 05:30
UTILITY ID:30007255 CITY OF HICKMAN

CALLER INFORMATION
NAME:John Amberg, Director of Pub. Works
ADR1:City of Hickman Municipal Gas System
ADR2:P. O. Gox 230
CITY:Hickman STATE:KY42050
HOME PHONE: WORK:(502)236-2535

COST OF DAMAGES
STRUCTURE: 150,000.00
GAS LOSS : 0.00

LOCATION OF INCIDENT
NAME:Indian Hills Village Apartments
ADR1:Apartment 44
ADR2:305 Boone Bernal Avenue
CITY:Hickman STATE:KY42050
CNTY:FULTON PHONE: (502)683-4752

EVENTS:
A EXPLOSION
B BLOWING GAS
C FIRE
D EVACUATION
OTHER EVENT

CAUSE CODE: D OTHER

CUSTOMERS OUT OF SERVICE: 4
SERVICE RESUMED DATE: / / :

REPORTABLE UNDER KY OR FED REG?F
CRITERIA:ignition

INSPECTION REQUIRED?Y INSPECTION NBR:199601000 ENTRY DATE: 1/ 9/96

DESCRIPTION OF INCIDENT:
Gas had been turned on in apartments on 11/13 and was not checked by apt. personnel. Gas leaks where cook stoves were not hooked up were found. Apt. #44 had cook stove in living room with no evidence of gas valve on pipe that fed stove. Gas built up in apartment, exploded and ignited resulting in destruction of entire second floor and heavy damage to entire first floor of an 8-apartment building.

CORRECTIVE ACTIONS:
Five violations are cited and action is recommended to the Comission to take action against Hickman in accordance with KRS 278. 992. Gas has been turned off and not relit. Hickman has checked all apts in complex and found several cook stoves with faulty pilots and heaters that are in bad need of cleaning. A rep from Hickman is to watch apt personnel light pilots.

VICTIMS:
None

PUBLIC SERVICE COMMISSION
GAS INSPECTION REPORT
INSPECTIONS CONCLUDED BETWEEN 01/01/96 AND 01/10/96

UTILITY ID: 30007255
COMPANY NAME: CITY OF HICKMAN

INSPECTION NBR:96 010 00 UNIT:00/
GAS OPERATION TYPE: GAS - MUNICIPALS/UNIV./HOUSING TYPE OF GAS: NATURAL
LINE SEG/VALVE SECT: MILE POST: INSP. TYPE:A ACCIDENT
COMPRESSOR STATION/NBR: NAME: NBR. OF VIOLATIONS: 5
TYPE OF PIPE IN SYSTEM:
INSP. NAME:NANTZ BEGIN DATE: 1/ 3/96 END DATE: 1/ 3/96 D.O.T. DAYS: 1
RESP. DUE: 2/ 9/96 NOTICES:(1) 1/10/96 (2) (3) (4)
RESULT OF INCIDENT REPORT? Y INCIDENT REPORT NUMBER: 223
REMARKS:F/U of acc. of 11/14, incid rpt written.
ENTRY DATE: 1/11/96

PUBLIC SERVICE COMMISSION
GAS VIOLATION REPORT

INSPECTIONS CONCLUDED BETWEEN 01/01/96 AND 01/11/96

UTILITY ID: 30007255
COMPANY NAME: CITY OF HICKMAN

INSP. NBR:96 010 00 V/N:001 UNIT:00/
GAS OPERATION TYPE: GAS - MUNICIPALS/UNIV./HOUSING TYPE OF GAS: NATURAL
LINE SEG/VALVE SECT: MILE POST: INSP. TYPE:A ACCIDENT
COMPRESSOR STATION NBR: NAME: NBR. OF VIOLATIONS: 5

FINDING PER REGULATION: 807 KAR 5:022, Section 9(17)(a)(3) VIO. CODE: .
O&M Plan was found be to be inadequate in that no customer gas turn-on procedures were available for gas employee reference.

PENALTY RECOMMENDED
$ .00

PENALTY APPROVED
$ .00
DUE DATE:

RECOMMENDATIONS PER FINDING:
Develop O&M Plan in compliance with regulations. Special attention should be given to procedures involving day-to-day operation.

PENALTY RECEIVED
$ .00
REC DATE:

VIO. CORR. DATE

ENTRY DATE: 1/11/96

INSP. NBR:96 010 00 V/N:002 UNIT:00/
GAS OPERATION TYPE: GAS - MUNICIPALS/UNIV./HOUSING TYPE OF GAS: NATURAL
LINE SEG/VALVE SECT: MILE POST: INSP. TYPE:A ACCIDENT
COMPRESSOR STATION NBR: NAME: NBR. OF VIOLATIONS: 5

FINDING PER REGULATION: 807 KAR 5:022, Section 9(17)(a)(3) VIO. CODE: .
Operator did not make the required inspection to assure that no gas leaks were present before serving customer.

PENALTY RECOMMENDED
$ .00

PENALTY APPROVED
$ .00
DUE DATE:

RECOMMENDATIONS PER FINDING:
Develop procedures to assure that an inspection will be made regarding the integrity of the customer's facilities before gas service is afforded the customer.

PENALTY RECEIVED
$ .00
REC DATE:

VIO. CORR. DATE

ENTRY DATE: 1/11/96

INSP. NBR:96 010 00 V/N:003 UNIT:00/
GAS OPERATION TYPE: GAS - MUNICIPALS/UNIV./HOUSING TYPE OF GAS: NATURAL
LINE SEG/VALVE SECT: MILE POST: INSP. TYPE:A ACCIDENT
COMPRESSOR STATION NBR: NAME: NBR. OF VIOLATIONS: 5

FINDING PER REGULATION: 807 KAR 5:022, Section 13(10) VIO. CODE: .
Operator did not have procedures in place to investigate failures.

PENALTY RECOMMENDED
$ .00

PENALTY APPROVED

$ .00
DUE DATE:

RECOMMENDATIONS PER FINDING:
Develop procedures to investigate failures in accordance with prescribed regulations.

PENALTY RECEIVED
$ .00
REC DATE:

VIO. CORR. DATE

ENTRY DATE: 1/11/96

INSP. NBR:96 010 00 V/N:004 UNIT:00/
GAS OPERATION TYPE: GAS - MUNICIPALS/UNIV./HOUSING TYPE OF GAS: NATURAL
LINE SEG/VALVE SECT: MILE POST: INSP. TYPE:A ACCIDENT
COMPRESSOR STATION NBR: NAME: NBR. OF VIOLATIONS: 5

FINDING PER REGULATION: 807 KAR 5:023, Section 5(2)
Operator did not drug test Mr. Duncan within 32 hours after the incident (5:023 and City of Hickman Ordinance Number 93-5, Section 3)

VIO. CODE: .
PENALTY RECOMMENDED
$ .00

PENALTY APPROVED
$ .00
DUE DATE:

RECOMMENDATIONS PER FINDING:
Follow procedures regarding City of Hickman's Drug Testing policies.

PENALTY RECEIVED
$ .00
REC DATE:

VIO. CORR. DATE

ENTRY DATE: 1/11/96

INSP. NBR:96 010 00 V/N:005 UNIT:00/
GAS OPERATION TYPE: GAS - MUNICIPALS/UNIV./HOUSING TYPE OF GAS: NATURAL
LINE SEG/VALVE SECT: MILE POST: INSP. TYPE:A ACCIDENT
COMPRESSOR STATION NBR: NAME: NBR. OF VIOLATIONS: 5

FINDING PER REGULATION: 807 KAR 5:022, Section 13(9)(a)
Operator did not have an adequate Emergency Plan at the time of the incident.

VIO. CODE: .
PENALTY RECOMMENDED
$ .00

PENALTY APPROVED
$ .00
DUE DATE:

RECOMMENDATIONS PER FINDING:
Develop an Emergency Plan to comply with regulatory requirements. Hold meetings with all gas system personnel and provide copies to assure newly-adopted operating procedures and the Emergency Plan are understood.

PENALTY RECEIVED
$ .00
REC DATE:

VIO. CORR. DATE

ENTRY DATE: 1/11/96

Incident No. 223

PUBLIC SERVICE COMMISSION
INCIDENT REPORT FORM

Utility ID # _____ Date of Call 11-14-95

Company Involved City of Hickman Time of Call 11:30 AM

Caller: Name John Amberg Title DIRECTOR 3441

Address _____ Phone (502) 236-2535

Date of Incident 11-14-95 Time of Incident 5:30 CST Location of Incident

(include county) Housing Complex (Indian Hill Village) Fulton Co.

Did Incident Cause: Fatality NO Injuries NO

Names of Injured or Fatalities: _____

Estimated Cost of Damages: (Include gas loss and structural loss.) 120,000/150,000

Did the following occur:

A. Explosion ✓ B. Blowing Gas _____ C. Fire ✓ D. Evacuation _____

Description & Possible Cause of Incident: ~~48~~ Apts. in on building (8 buildings) Turned gas on to vacant apt. kitchen stove had been cut line was not capped - All 4 apts are damaged

Customers Out of Service 4 Time Normal Service Resumed N/A

Corrective Actions Taken Will review policy concerning turn on/off

Is this incident reportable under 807 KAR 5:027? Yes ✓ No _____

Check Which Regs. Apply: KENTUCKY ✓ /FEDERAL

Under what criteria is this incident reportable? unintended ignition

Is Follow-up Action Required by Company? _____

Cause Code:

A. Corrosion _____
B. Third Party Damage _____
C. Construction _____
D. Other ✓
E. Suicide _____
F. Undetermined _____

SIGNATURE Larry Dunbar TITLE Asst. Supt.

DATE 11-14-95 REVISED: August 8, 1995

SUBJECT: TELEPHONIC RECORD PRINTOUT
DATE: 11/15/1995
PAGE: 2

NRC REPORT NUMBER:	314116
RECORD IDENTIFICATION:	461593
CODE DAY TO NRC:	11/14/1995
CODE TIME TO NRC:	1210
CODE STATE:	KY
DATE SPILLED:	11/14/1995
TIME SPILLED:	0530
DUTY OFFICER:	AMG
MATERIAL SPILLED:	NATURAL GAS
QUANTITY SPILLED / IN WATER:	
PERSON REPORTING:	AMBERG, JOHN
COMPANY REPORTING:	CITY OF HICKMAN
COMPANY'S ADDRESS:	1812 SOUTH 7TH ST HICKMAN KY 42050
PHONE:	502-236-2535
SPILLED LOCATION (CITY):	HICKMAN
(COUNTY, STATE):	FULTON KY INDIAN HILLS VILLAGE BERNAL AVE
SPILLER PERSON REPORTING:	AMBERG, JOHN
SPILLER COMPANY REPORTING:	CITY OF HICKMAN
SPILLER COMPANY'S ADDRESS:	1812 SOUTH 7TH ST HICKMAN KY 42050
SPILLER'S PHONE:	502-236-2535
MEDIUM:	AIR
WATERWAY AFFECTED:	ATMOSPHERE
DESCRIPTION OF CAUSE:	GAS LINE (SIZE UNKNOWN BY CALLER) TO GAS RANGE/THE LINE WAS IMPROPERLY DISCONNECTED CAUSING THE APARTMENT TO FILL WITH GAS AND EXPLODE
DEATHS:	
INJURIES:	
EVACUATIONS:	YES
PROPERTY DAMAGE:	$150000.
REMEDIAL ACTION:	THE FIRE HAS BEEN EXTINGUISHED/INVESTIGATING THE CAUSE OF THE ACCIDENT
AGENCIES NOTIFIED:	ST/LOC NTSB_PIPE RSPA_OPS
OTHER AGENCY(S) CALLER NOTIFIED:	PUBLIC SERVICE COMM.
OTHER AGENCY(S) NOTIFIED BY NRC:	
TIME OF NOTIFICATION:	1235
MISCELLANEOUS INFORMATION:	NO OTHER SERVICE WAS INTERRUPTED/THE BUILDING HAD FOUR APARTMENTS/ CALLER HAD NO OTHER INFORMATION
DATE CANCELLATION LETTER:	
REPORTABLE:	
DATE OF ENTRY:	11/15/1995
DATE OF LAST CHANGE:	

LLA

Gas Explosion at Indian Hills Village
11-13/14-1995

Statement from Jackie Duncan about his involvement with incident.

At approximately 1550hrs on 11-13-95 the on site manager from Indian Hills Village, Amy Payne, called the City Hall and requested the gas to be turned on at twelve apartments fearing the cold weather would freeze the pipes in the vacant apartments. Jackie Duncan, a employee for the Hickman Public Works Dept. answered the call by going to City Hall and picking up the work orders for the apartments to be turned on. At approx. 1605 he arrived at Indian Hills to begin turning on the gas to the apartments. As he began the manager(Amy Payne) came to him and asked if he was with the gas company and there to turn on the gas to the apartments. He stated he was, she stated she would contact the maintenance man to check the apartments and light the heaters to the apartments. When Jackie finished turning on the apartments, he went toward the office to tell her he was finished, he found Ms. Payne in the laundry area next to the office and told her he was finished turning on the gas. Amy and Darrell ##### , one of the maintenance men, were in the laundry where she again stated she would get the maintenance men to check the apartments. Jackie then left and returned the work orders to City Hall at approx. 1625hrs.

Jackie Duncan
Jackie Duncan

This has been our policy for Indian Hills Village due to there request since they have a maintenance man on the payroll.
The renters of the apartment, the manager, or the maintenance man are notified that the gas has been turned on so the maintenance man can check the apartments and light the pilots to the appliances.

Gas Explosion at Indian Hills Village
11-13/14-1995

Statement from John Amberg, Public Works Director, about incident.

At 2350 hrs on 11-13-95 I was called by Clentis Turnbow, a dispatcher for the Hickman Police Dept., about a possible gas leak at Apt. 32 Indian Hills Village. Due to the crime rate and violence at this complex, I notified the Police Dept. that I would like a officer to meet me at this location. Kevin Griffin, a police officer, and myself arrived at the same time. As we approached the building we noticed the door to apartment #31 was standing wide open. As I knocked on the door of Apt. #32 Kevin checked Apt. #31. Kevin stated that he had found the leak in Apt. #31. Upon entering the apartment to investigate, there was a strong smell of gas, we found a gas line to where a cook stove should have been spewing wide open. I turned the valve off inside the apartment and then turned the meter stop off outside the apartment. Kevin and myself opened the windows to the apartment and secured the doors. Frank Kendrix who lives in Apt. #32 and called the report in to the Police Dept. stated he had called Melinda Taylor who was the on site manager to tell her of the problem. She told him that she had quit working for the company on Friday, 11-10-95, and couldn't help him so he called the Police Dept. As we were leaving at 0118, I notified the Police Dept. by radio what we had found and what actions were taken and what Mr. Kendrix had told us about the ex manager

At 0532 the Hickman Fire Dept. received a call to Indian Hills Village Apt. #44, a possible gas explosion.

Upon arriving at the complex the second time for the fire (Jackie and myself are volunteer firemen) , Jackie came to me and stated that Apt. #44 was one of the twelve apartments that he had turned on the day before (11-13-95). Since I had taken off work at 1400 hrs on 11-13-95, I had no idea what he was talking about. After talking to him a few minutes and finding out that Apt. #31 was also one that he had turned on the previous day, I found Lawrence Chiers, who is a maintenance man at Indian Hills. He and myself began to check the apartments that were turned on the previous day and turning them back off until they could be checked further. At approx. 0545 as we entered Apt.#22, we noticed a strong smell of gas. As we were investigating the smell, I found that the cook stove had been removed from the apartment and that the gas valve had been left on just like the case of Apt. #31.. The valve in the apartment was turned off and the meter was turned off at this time. After checking all the apartments that had been turned on, I returned to the explosion area to tell the Fire Chief, Larry Myatt, what we had found at 0100 and 0540 hrs. when Johnny Paul Atkinson, a resident of the building that blew up, stated the cook stove in Apt. #44 was in the living room floor instead of the kitchen. ***There are eight apartments in the building - 4 on top, 4 on bottom. Six of the apartments were occupied - no one recieved a scratch***
Sometime around daylight, Amy and Darrell arrived at the scene, I asked Jackie if this was the lady that he had spoken to about the maintenance men checking the apartments, he said that it was

and that Darrell was the maintenance man in the laundry when he told her the gas was on. I went to them and identified myself as the Public Works Director and told them there may have been a gas explosion in Apt. #44 and asked if the maintenance men had checked the apartments that were turned on the previous day . Amy looked at Darrell and started to cry, Darrell asked what caused the explosion, I asked if the apartments were checked, he stated some of them. I told him about the two apartments with out the cook stoves and how the gas was spewing from the lines, as he shook his head in disbelief , he said he should have checked the apartments. The Fire Chief had notified the State Arson Investigator, Richard Hart, to look at the scene and investigate. After his interviews, he turned the case over to the State Fire Marshals Office, Eddie Clark, and the Hickman Police Dept., Chief Larry Evans, to investigate. After the fire was extinguished we began to investigate the scene and Apt. #44 where the cook stove was found in the living room floor and there was no evidence of a gas valve on the pipe that feed the cook stove.

John Amberg, Public Works Director
City of Hickman

Our policy for turning on the gas at Indian Hills Village has changed due to the incident on 11-14-95.
When the gas is to be turned on at any apartment in this complex the maintenance man and a representative from the Public Works Dept. will both be there when the gas is turned on. The representative will watch the maintenance man and double check the pilots on all appliances to assure that they have been lit and are burning properly or the gas is to be turned off at the meter and locked until it can be corrected.

#NOTE#

Employees from the Public Works Dept. along with the maintenance men checked all the apartments in the complex and found several cook stoves with faulty pilots and heaters that were in bad need of cleaning.

OFFICE OF THE STATE FIRE MARSHAL
DIVISION OF FIRE PREVENTION

FIRE INVESTIGATIVE REPORT

DATE REPORT SENT TO OFFICE: 12/08/95 CASE NO. 9511141000RR

INCIDENT LOCATION: INDIAN HILLS APTS. BLDG. A

STREET 305 BOONE BERNAL AVENUE

CITY & COUNTY HICKMAN, KY 42050 FULTON COUNTY

TIME OF OCCURRENCE: DAY TUESDAY DATE 11/14/95 TIME 0532 HRS

OCCUPANCY TYPE: S.F. ☐ BUSI. ☐ APT. ☒ OTHER:

FMO RESPONSE: YES ☒ NO ☐

REQUESTED BY: HICKMAN FIRE DEPARTMENT DATE OF REQUEST 11/14/95

TIME OF REQUEST 0930 HRS

DSFM NAME 1. EDDIE R. CLARK DAY TUESDAY DATE 11/14/95 TIME 0930 HRS

2. _____ DAY _____ DATE _____ TIME _____ HRS

ARRIVED ON SCENE: DAY TUESDAY DATE 11/14/95 TIME 1050 HRS

	NO.	NAME	SEX	AGE	SOC. SEC. #	PHONE NO.
OCCUPANT	1					
	2					
	3					
	4					
OWNER➤		DIVERSIFIED MANAGEMENT INC.				(502) 683-4752

ADDRESS: 316 1/2 FREDRICA STREET, OWENSBORO, KY

INSURANCE: INS. CENTER, 611 FREDRICA STREET, OWENSBORO, KY (502-926-1030)

FIRE ☐ EXPLOSION ☐ EXPLOSION/FIRE ☒ OTHER:

INJURY: YES ☐ NO ☒ NAME:

DEATH: YES ☐ NO ☒ NAME:

FIRE INVESTIGATIVE REPORT (CONT'D)

CASE NO. 9511141000RR

CONST. TYPE: WD. FR. [X] ORD. [ ] OTHER: BRICK VENEER

PROTECTION: S.D. [X] F.A. [ ] SPRINKLER [ ] NONE [ ]

ENERGY SERVICE: ELEC. [X] NAT. GAS [X] OTHER _____

WEATHER CONDITIONS: CLEAR AND COLD

RESPONDING FIRE DEPT. _____ PH. NO. _____

HOW NOTIFIED: _____ TIME OF ARRIVAL _____ HRS.

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

FIRST-IN FIREFIGHTER NAME: _____

BRIEF DESCRIPTION OF INCIDENT INCLUDING CAUSE & ORIGIN

A NATURAL GAS EXPLOSION OCCURRED IN APARTMENT A-44 DUE TO AN OPEN GAS LINE. A FIRE FOLLOWED, RESULTING IN DESTRUCTION OF THE ENTIRE SECOND FLOOR, AND HEAVY DAMAGE TO THE ENTIRE FIRST FLOOR.

CONCLUSION

AREA OF ORIGIN: APT. A-44 KITCHEN

POINT OF ORIGIN: GAS LINE AT COOK STOVE LOCATION

HEAT SOURCE: UNDETERMINED

MATERIAL 1ST IGNITED: NATURAL GAS VAPORS

CATEGORY: ACCIDENTAL

TITLE OF INVESTIGATION	CASE NUMBER
CAUSE AND ORIGIN	9511141000RR

DETAILS:

On November 14, 1995, at 0930 hours I was notified by Kentucky State Police Post #1, regarding a fire in Hickman, Kentucky. At 0940 hours I called my Frankfort Office, and spoke with Assistant State Fire Marshal, Rodney Raby, and he advised there was some type of explosion and fire and wanted to know what I knew about it. I advised, I knew nothing of it, but would find out and advise him back. At 0950 hours I called Kentucky State Police Post #1, and talked to the Dispatcher and he advised Richard Hartz, (Arson Investigator), was on the scene, and he advised it was a possible natural gas explosion, and fire. At 0955 hours I advised Mr. Raby of this information, and he requested I respond and issued this Case Number. As soon as I reached radio range of Hickman Police Department, they requested I respond to the Police Department to meet with Fire Chief, Larry Myatt, and Kentucky State Police Arson Investigator, Richard Hartz.

I arrived at the Hickman Police Department and Fire Department at 1050 hours. I met with Richard Hartz, Hickman Police Chief, Larry Evans, and John Amberg of Hickman Public Works Department. Mr. Amberg explained that the natural gas system is a municipally owned system. He advised on November 13, 1995, they received a request from the Indian Hills Management to turn on the gas to several apartments, with A-44 being one of them. He advised they turned the gas on at about 1600 hours on November 13, 1995. On November 14, 1995, at 0050 hours, the occupant of Apartment B-32 reported a gas odor in his apartment at 0118 hours. John Amberg and a police officer responded and found an open gas line in Apartment B-31, flowing gas. They immediately shut off the gas to the apartment. Then at 0532 hours Hickman Fire Department received a report of an explosion and fire at Indian Hills Village apartments, building "A" north. Mr. Hartz advised he saw no evidence of any foul play; however, it does appear an explosion occurred.

At about 1138 hours we left the fire station enroute to the scene, and Richard Hartz left Hickman,Kentucky enroute to Post #1. We arrived on the scene at 1140 hours. I found a two-story, wood frame, brick veneer apartment building with total destruction of the second floor, and very

TITLE OF INVESTIGATION	CASE NUMBER
CAUSE AND ORIGIN	9511141000RR

DETAILS:

heavy damage to the first floor. The building contained eight (8) apartments - four (4) upstairs, and four (4) downstairs. I immediately photographed the scene, then started my scene investigation. According to firefighters, the cook stove in A-44 had been disconnected prior to the fire, and was sitting in the middle of the kitchen floor. This was the apartment in which ignition took place. The gas cook stoves in apartments A-44 and A-43 set back to back with the gas piping in the walls. We dug out the gas piping, and we found no manual gas shut off at the end of the gas piping on either stove in apartments A-44 and A-43. However, the stove in A-43 did have a flexible gas line connected direct to the piping. The stove in A-44 had no flexible line connected to it, nor did it have a manual shut off at the end of the gas piping. Police Chief, Larry Evans, John Amberg, and Hickman Firefighters assisted me in this investigation. We then checked gas cook stoves in apartments A-41, 39, 38, 40, and 37, and all these stoves had flexible gas lines with a manual shut off valve at the end of the ridgid gas piping.

I interviewed maintenance man, Lawrence Cheirs, Apt. A-6, Indian Hills Village Apartments, Hickman, KY 42050; SSN: [redacted], D.O.B.: [redacted] and no phone. He advised, he is the fulltime maintenance man at the apartment complex. He advised, his job is to perform general basic maintenance at the complex. He advised, he was hired on the 29th of July, 1995, and the stove in apartment A-44 was located in the middle of the kitchen floor at that time. He advised, the maintenance man before him was Kevin Etheridge of Hickman, Kentucky. He also advised that it was common practice for them to remove an appliance from a vacant apartment and reinstall it in an occupied apartment. He advised, the ex-manager and resident of Indian Hills, Melinda Taylor, resigned on November 10, 1995.

I also interviewed Mrs. Pearlie Pack, Executive Director of Diversified Management, Inc., located at 316 1/2 Fredrica Street, Owensboro, Kentucky; Telephone Number (502) 683-4752. Present during this interview was Jim King, Maintenance Supervisor, Darrell Daniels, also of DMI Maintenance, Property Manager, Amy Payne, and Hickman Police Chief, Larry Evans.

TITLE OF INVESTIGATION	CASE NUMBER
CAUSE AND ORIGIN	9511141000RR

DETAILS:

Mrs. Pack advised that their last manager, Melinda Taylor, resigned on November 10, 1995, and the temporary manager is Amy Payne. On November 13, 1995, the gas was turned on at about 1600 hours to the apartments listed on the Hickman Water and Gas Reports, included in this report by request of Amy Payne. Mrs. Pack advised it is not common practice to scavenge appliances from vacant apartments, and reinstall them in occupied apartments. I asked if a check of the apartments was made after the gas was turned on, and they said there was not.

At about 1400 hours Chief Evans and I went to Hickman Public Works and met with Public Works Supervisor, John Amberg, and I acquired a copy of some construction blueprints of the entire building involved. This drawing includes building demensions, floor layout, and location of basic appliances.

As I completed my scene investigation and interviewed the apartment maintenance personnel, it is very obvious that this fire was the result of a natural gas explosion caused by an open gas line in apartment A-44. Sometime prior to July 29, 1995, the gas cook stove in Apartment A-44 was disconnected and moved to the center of the kitchen floor. The flexible gas line and manual shut off valve was removed probably to be used in another apartment. The gas line in Apartment A-44 was never plugged, leaving it an open gas line. When the gas company turned on the gas on the afternoon of November 13, 1995, this allowed a free flow of gas into the apartment until 5:32 AM on November 14, 1995, when apartment A-44 exploded and resulted in fire.

I left Hickman, Kentucky at about 1530 hours and arrived home at 1600 hours.

On December 4, 1995, I met with Richard Moysenko, and Mayfield Attorney, Kevin Bishop and explained the sequence of events that led up to this fire. Also, at their request I took them through the building and explained what happened and answered questions.

CONCLUSION:

According to statements from firefighters, company maintenance

TITLE OF INVESTIGATION: CAUSE AND ORIGIN

CASE NUMBER: 9511141000RR

DETAILS:

Personnel, fire scene patterns, and physical evidence, there is no doubt that an explosion occurred and resulted in fire in apartment A-44. The Cause of the explosion was an open gas line, which normally would supply gas to the cook stove. This line was left open since prior to July 1995, according to maintenance man, Lawrence Cheirs. When the gas company turned on the gas on the afternoon of November 13, 1995, with no inspection of the apartments, this allowed a free flow of gas into apartment A-44 until 0532 hours on November 14, 1995, when ignition occurred.

On November 13, 1995, when the gas meter was turned on to apartment A-44 the meter reading was 3265. On November 14, 1995, when the same meter was shut down at the fire scene, it read 3367, which is a difference of 72 cu. ft. of gas. These figures were obtained from Hickman City Hall, and may or may not be accurate.

This will be the end of this report.

INCLUDED IN THIS REPORT IS:

1.) One (1) Roll of Prints, Negatives, and Photo Log.
2.) Copy of the Hickman Police/Fire/Ambulance Dispatch Log, beginning at 0050 hours on 11/14/95, through 1104 hours on 11/14/95.
3.) Copy of some of the construction drawings of the building.
4.) Paducah Sun Newspaper Article.
5.) Copies of the Hickman Water and Gas Department work orders to turn on the gas.
6.) Copy of drawing layout of Indian Hills Village.
7.) Fire Department Run Report.

Eddie R. Clark

Eddie R. Clark, C.F.E.I.
Deputy State Fire Marshal
December 7, 1995

OFFICE OF THE STATE FIRE MARSHAL

PHOTO LOG

DATE: 11/14/95 LOCATION: HICKMAN, KENTUCKY CASE NO: 9511141000RR

PHOTOGRAPHER: EDDIE R CLARK CAMERA TYPE: ~~35 MM~~

TIME SERIES BEGAN: 1145 HOURS FILM BRAND: KODAK

ASA SPEED: 400

ROLL	PHOTO	DESCRIPTION
#1	#1	I.D. PHOTO
	#2	LOCATION NAME
	#3	WEST SIDE OF BUILDING
	#4	FRONT OR SOUTH SIDE OF BUILDING
	#5	WEST SIDE
	#6	N.E. REAR
	#7	N.W. REAR
	#8	EAST SIDE
	#9	GAS COOK STOVE IN APARTMENT A-43
	#10	GAS LINE TO COOK STOVE IN APARTMENT A43
	#11	SAME AS PICTURE #10
	#12	GAS LINE TO COOK STOVE IN APARTMENT A-44
	#13	KITCHEN AREA IN APARTMENT A-44
	#14	PLUMBING AREA BETWEEN APARTMENTS A-44 AND A-43
	#15	COOK STOVE IN APARTMENT A-41, (SHOWS GAS SHUT OFF)
	#16	TYPICAL KITCHEN ARRANGEMENT
	#17	SAME AS #15
	#18	CHECKING A-39
	#19	KITCHEN OF A-39
	#20	CHECKING A-38
	#21	GAS COOK STOVE CONNECTION IN A-38
	#22	CHECKING A-40
	#23	GAS CONNECTION IN A-40
	#24	CHECKING A-37
	#24A	GAS CONNECTION IN A-37

BARKLEY THIELEMAN/The Sun

What's left

Bricks litter the yard at the Indian Hills Village apartments in Hickman after Tuesday's explosion and fire. No one was injured in the blaze, but five families lost their possessions and were left homeless. *(Story, 9A.)*

Gas leak causes apartment blast

5 Hickman families left homeless by morning explosion; none hurt

BY BOBBIE POUST
THE PADUCAH SUN

HICKMAN, Ky. - It appears a gas line and shutoff valve were taken when a stove was disconnected in an apartment, resulting in free-flowing gas that ignited Tuesday morning. The fire damaged all eight apartments in the building, leaving five families homeless and without possessions but no one injured.

Insurance investigators are looking into the cause of the leak, which caused the explosion at Indian Hills Village about 5:30 a.m.

"It's a miracle nobody got injured," said Joe Brown, who lives in one of the other buildings and heard the explosion.

Jim King, a supervisor with Diversified Management of Owensboro, owner of the eight-building complex, estimated damage to the building at between $125,000 and $200,000.

John Amberg, director of public works for the city of Hickman, said an employee in his department turned on the natural gas to the apartments in the damaged building and four apartments in another building Monday afternoon.

"Our normal procedure is, we'll go out and turn on the gas at the meter," he said, noting that each apartment is individually metered. "We'll turn on whichever apartment they want turned on, and then the maintenance man (at the complex) comes in and checks everything to make sure everything is all right."

State Fire Marshal Eddie Clark said the explosion and fire were caused by a natural gas leak in one of the upstairs apartments in the building. He said a stove in the apartment had been disconnected, and apparently somebody had removed the flexible line and the gas shutoff valve.

"Then when they turned the gas on, that allowed the free flow of gas throughout that one particular apartment, which was the one that ignited," Clark said.

Clark said he checked all the other apartments, and each one had a shutoff valve directly behind the stove on the end of the gas piping.

But that valve was missing in the apartment that exploded. "It appeared that sometime in the past, (someone) had disconnected the stove and took the line and the shutoff valve," Clark said.

The village's site manager, a woman brought in from Owensboro after the former site manager resigned last Friday, was informed that the gas had been turned on, and had said she would have a maintenance worker check the apartments, Amberg said.

He said the public works employees don't go into apartments and light the furnaces or the stoves. "It's more like a privately owned deal, and they more or less take care of their own," Amberg said. "... After the fire this morning, we inspected every apartment on the grounds."

Holly King - another manager with the village's corporate office in Owensboro who arrived with Jim King, her husband, about noon - said she didn't know if one of the complex's three maintenance employees inspected the apartments after the city workers had turned on the gas.

Actually, gas leaks were found in three different buildings Tuesday. Amberg said he was called at 1 a.m. to a reported gas leak in an apartment in another building at the complex. "I went out personally, and there was one apartment that had a major gas leak," he said. "I had a police officer with me, and we turned the gas off to that one apartment. At the time, that was the only gas leak we knew of.

"Then at 5:30 this morning, the fire department had a call that there had been an explosion out there, possibly gas-related. When we got out there, the (worker) who turned the gas on (turns out to be a firefighter with) the fire department."

A check of the remaining apartments in the complex after the explosion revealed that another of the apartments where the gas had been turned on "was just running wide open on gas, too," Amberg said.

Fire Chief Larry Myatt said all eight apartments were on fire when the firefighters arrived. He said about 25 firefighters from Hickman and neighboring Cayce had the blaze controlled shortly after 8 a.m.

Brown, the resident in another building, commended the firefighters. "They did a great job trying to save (the building), but there wasn't anything they could do," he said. "They did a good job containing (the fire) because it could have jumped to another building."

Holly King said the management company will help the tenants find new apartments as soon as possible. "For now, we are taking care of them in motels," she said, adding that the company also is helping the displaced tenants with food, money and other needs.

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11.13.94 | Acct. No.

New Customer / Change Meter / Transfer Service / Final Remove —] Set O] Remove O

turn on gas
A-37

WATER — BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN								
OUT								

GAS — BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN ✓							5371	
OUT								

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11-13-95 | Acct. No.

New Customer / Change Meter / Transfer Service / Final Remove —] Set O] Remove O

turn on gas
A-14

WATER — BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN								
OUT								

GAS — BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN ✓							3265	
OUT								

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills

Service Address

From 11-13-95
To

Address

Billing Ad.

Acct. No.

New Customer
Change Meter] Set ○

Transfer Service
Final Remove] Remove ○

turn on gas
A-1

WATER BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTA
IN								
OUT								

GAS BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTA
IN ✓							4425	
OUT								

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills

Service Address

From 11-13-95
To

Address

Billing Ad.

Acct. No.

New Customer
Change Meter] Set ○

Transfer Service
Final Remove] Remove ○

turn on gas
A-5

WATER BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN								
OUT								

GAS BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN ✓							3537	

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11-13-95 | Acct. No.

To

New Customer / Change Meter / Transfer Service / Final Remove — Set ○ Remove ○

turn in gas
~~B-4~~ C-45

WATER — BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN								
OUT								

GAS — BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN							5881	
OUT								

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11-13-95 | Acct. No.

To

New Customer / Change Meter / Transfer Service / Final Remove — Set ○ Remove ○

turn in gas
C-46

WATER — BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN								
OUT								

GAS — BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN							3450	

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11-13-95 To | Acct. No.

New Customer / Change Meter] Set ○

Transfer Service / Final Remove] Remove ○

turn on gas
B-30

WATER BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTAN
IN								
OUT								

GAS BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTAN
IN ✓							6187	
OUT								

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11-13-95 To | Acct. No.

New Customer / Change Meter] Set ○

Transfer Service / Final Remove] Remove ○

turn on gas
B-31

WATER BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTAN
IN								
OUT								

GAS BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTAN
IN ✓							5531	
OUT								

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11-13-95 | Acct. No.

To

New Customer
Change Meter] Set ○
Transfer Service
Final Remove] Remove ○

turn on gas
B-23

WATER | BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN								
OUT								

GAS | BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN ✓							3709	
OUT								

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11-13-95 | Acct. No.

To

New Customer
Change Meter] Set ○
Transfer Service
Final Remove] Remove ○

turn on gas
B-25

WATER | BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN								
OUT								

GAS | BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN ✓							5634	
OUT								

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11-13-95 | Acct. No.

To

New Customer / Change Meter] Set ○

Transfer Service / Final Remove] Remove ○

turn on gas
B-15

WATER BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN								
OUT								

GAS BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN ✓							3893	
OUT								

CITY OF HICKMAN

WATER & GAS DEPARTMENTS

Name Indian Hills | Address

Service Address | Billing Ad.

From 11-13-95 | Acct. No.

To

New Customer / Change Meter] Set ○

Transfer Service / Final Remove] Remove ○

turn n gas
B-22

WATER BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT		CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
GAL. OR CU. FT.	SEWAGE	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	$	AMOUNT $	PREVIOUS READING	AMOUNT $	

WATER METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN								
OUT								

GAS BILLING INSTRUCTIONS

MINIMUM BILL CONTRACT	CUSTOMER DEPOSITS	COMPLETE THIS SECTION ONLY WHEN ACCOUNT WAS COLLECTED PRIOR TO BILLING		
CU. FT.	RECEIPT NO.	PRESENT READING	CONSUMPTION	DATE COLLECTED
AMOUNT $	AMOUNT $	PREVIOUS READING	AMOUNT $	

GAS METER DATA

	STOCK-DEAD	OTHER INFORMATION	MAKE	SIZE-TYPE	MFG. NO.	CO. NO.	READS	CONSTANT
IN ✓							4672	
OUT								

HICKMAN POLICE/FIRE/AMBULANCE DISPATCH LOG

2400	0600	Turnbow	0608	1400	Hankins
ON	OFF	DISPATCHER	ON	OFF	DISPATCHER

DATE: 11-14-95

TIME	FROM	TO	CODE	LOCATION & NATURE OF CALL	10-97	10-98
0050	PD	LOG	10-21	FRANK KENDRIX AT B-32 INDIAN HILLS REPORTED SMELLING GAS IN HIS APT. CONTACTED JOHN AMBERG.		
0118	PW-31	PD	LOG	WHILE CHECKING POSSIBLE GAS LEAK AT APT. B-32 INDIAN HILLS, PW-31 NOTICED THE BACK DOOR TO APT. B-31 WAS OPEN. THE APT. WAS VACANT AND PW-31 AND 515 ENTERED THE APT. AND FOUND THAT SOMEONE HAD REMOVED THE COOK STOVE FROM THE KITCHEN AREA AND GAS WAS COMING OUT OF THE LINE AT FULL FORCE. PW-31 TURNED THE GAS OFF AT THE METER AND ALSO THE VALVE INSIDE THE APT. MELINDA TAYLOR WAS NOTIFIED AND SHE STATED THAT SHE IS NO LONGER THE MANAGER.		
0157	515	PD	10-4	ALL SECTORS.		
0443						
0532	PD	HFD	10-39	Indian Hills Village		
0533	Eng-2	PD	10-85	—	0535	0953
0538	Eng-1	PD	10-85	—	0540	1015
0539	Eng-4	PD	10-85	—	0541	1007
0540	PD	Log	10-21	ABCC notified of Fire / need power cutoff		

HICKMAN POLICE/FIRE/AMBULANCE DISPATCH LOG

0600	1400	Debbie			
ON	OFF	DISPATCHER	ON	OFF	DISPATCHER

DATE: 11-14-95

TIME	FROM	TO	CODE	LOCATION & NATURE OF CALL	10-97	10-98
0604	FD-1	PD	Page	CFD for Mutual Aid		
0605	FC-12	PD	10-85	CFD will respond.		
0622	505	PD	10-21	236-2108 advise Sisri Jimmy Arga will		
/				be late for work due to, fire at Indian		
/				Hills Villas.		
0624	PD	505	10-12	Marilyn McClerkin needs Police to watch		
/				her house at 1805 Moscow / She is afraid		
/				David Polk is going to do something to car or		
/				her house.		
0627	FC-2	PD	10-97	CFD on scene.		
0630	PD	Log	10-21	KYTV		
0631	FD-7	PD	10-21	HECC / need a Bucket truck to send FF to		
/				top of Apt Bld.		
0632	PD	Log	10-21	TV-6		
0701	Pw-31	PD	10-21	Bobby Childers / have him come to Fire scene		
/				Pw-31 needs to talks to him.		
0726	PD	Log	10-21	Miss Nichols at 825 Cedar st. needs Police to		

HICKMAN POLICE/FIRE/AMBULANCE DISPATCH LOG

0600	1400	Harkins			
ON	OFF	DISPATCHER	ON	OFF	DISPATCHER

DATE: 11-14-95

TIME	FROM	TO	CODE	LOCATION & NATURE OF CALL	10-97	10-98
/				contact Wanda Eakes at Guiren #2.		
0736	PD	Log	10-21	Wanda Eakes advises send Ambulance for Miss Nichols.		
/						
0736	PD	M-21	10-42	Nichols at 825 Cedar st.		
0737	FD-1	PD	10-21	Richard Hartz 1468 call #		
0744	CFD	PD	10-8	from Fire	—	—
0750	M-21	PD	10-85	825 Cedar st. SM-48790 OSM-48790	0751	0759
0753	PD	Log	10-21	Richard Hartz & Mr Fulton on way		
0759	M-21	PD	10-85	BMH AHM-48805	0819	0830
0813	PD	505	10-47	FCES Back door Francis Myatt passed out.	—	0830
0818	PD	Log	Passed	EMT's on Ch. 1 / could get scene by phone.		
0819	DES-7	PD	10-4	Miss Myatt is 10-4 10-3 Amb.		
0830	M-21	PD	10-8	10-85 10-19		
0833	FC-11	PD	10-28	VIN 3B69F6W112659		
0837	505	PD	10-3	on 10-28		
0842	FD-1	PD	10-6	Fire Scene		
0849	M-21	PD	10-19	EM-48820		

HICKMAN POLICE/FIRE/AMBULANCE DISPATCH LOG

0600	1400	[illegible]			
ON	OFF	DISPATCHER	ON	OFF	DISPATCHER

DATE: 11-14-95

TIME	FROM	TO	CODE	LOCATION & NATURE OF CALL	10-97	10-98
0906	PD	Log	10-21	Jim Landry WEMS 1-90-885-1240		
0952	Eng-2	PD	10-19	—		
1002	PD	FD-1	10-21	Post 1 advises FM-65 on way from Paducah.		
1007	Eng 4	PD	10-19	—		
1013	PD	Log	10-21	Bobbi Foust Paducah Sun 1-800-599-1771		
1015	Eng-1	PD	10-8	from Fire Scene 10-85 10-19		
1019	PD	Log	10-21	Bill Powell asking phone # for FM-65		
1056	PD	Log	10-21	Jane at Post for Richard Hartz.		
1104	PD	FD-1	10-21	Amy Payne at Indian Hills reports flames still coming from one of the burned buildings.		

DATE 11-14-95

HICKMAN FIRE DEPARTMENT
FIRE RUN RECORD

TEMPERATURE 32°

STREET ADDRESS Bernal Ave

OWNER Diversified Management Inc.

PURPOSE USED FOR Dwelling

TYPE OF BUILDING Apt Building

FIRE ORIGIN Gas Explosion

FIRE SPREAD TO OTHER STRUCTURES

EXTINGUISHED BY
1. BOOSTER TANK
2. HYDRANT SUPPLY X
3. STREAMS PUMPER
4. DELUGE X
5. CHEMICAL
6. OTHER

COVERS USED INSIDE No OUTSIDE No

FIRST AID No BUILDING SAFE No

BUILDING ROPED OFF yes

POLICE ASSISTANCE yes

MUTAL AID yes Cayce

PERSONNEL INJURED No
INJURY NATURE N/A

REMARKS: Public works Dept turned gas on in all vacant apts on Monday the 13th. Apt. Maint. personnel were to check apts for gas leak. apparently all apts were not checked. Gas build up in apt led to explosion and fire. 8 individual apts were a total loss.

USE BACK FOR OTHER REMARKS

CHIEF OFFICER RESPONDING

Larry J. Myatt DATE 11/14/95
SIGNATURE

WEATER Cloudy

TIME REPORTED 0532 A.M./P.M.

ALARMS THIS MONTH ____ TO DATE ____

TIME ON SCENE 0535 TIME OFF 1003

COMPANIES RESPONDING 1. ✓ 2. ✓

SERVICE TIME 5 1/4 hrs

PUMPERS USED		OUT TIME	IN TIME
1. ✓	1981	0538	1015
2. ✓	1974	0533	0953
3.	1965		
4. ✓	1989	0539	1007

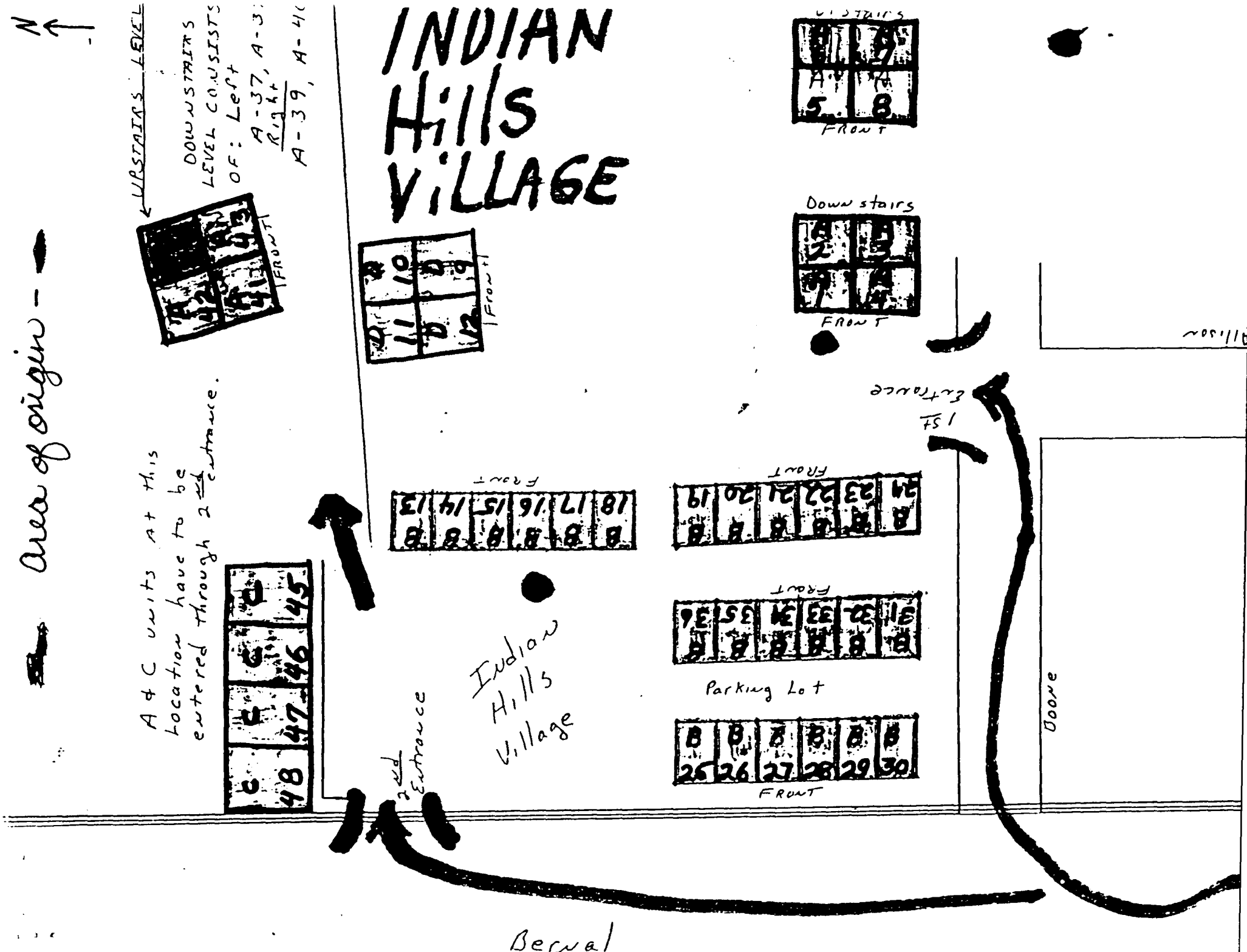
HOSE USED
1" OR 3/4"
1 1/2"
1 3/4" X
2 1/2" X
3"
5" X
OTHER

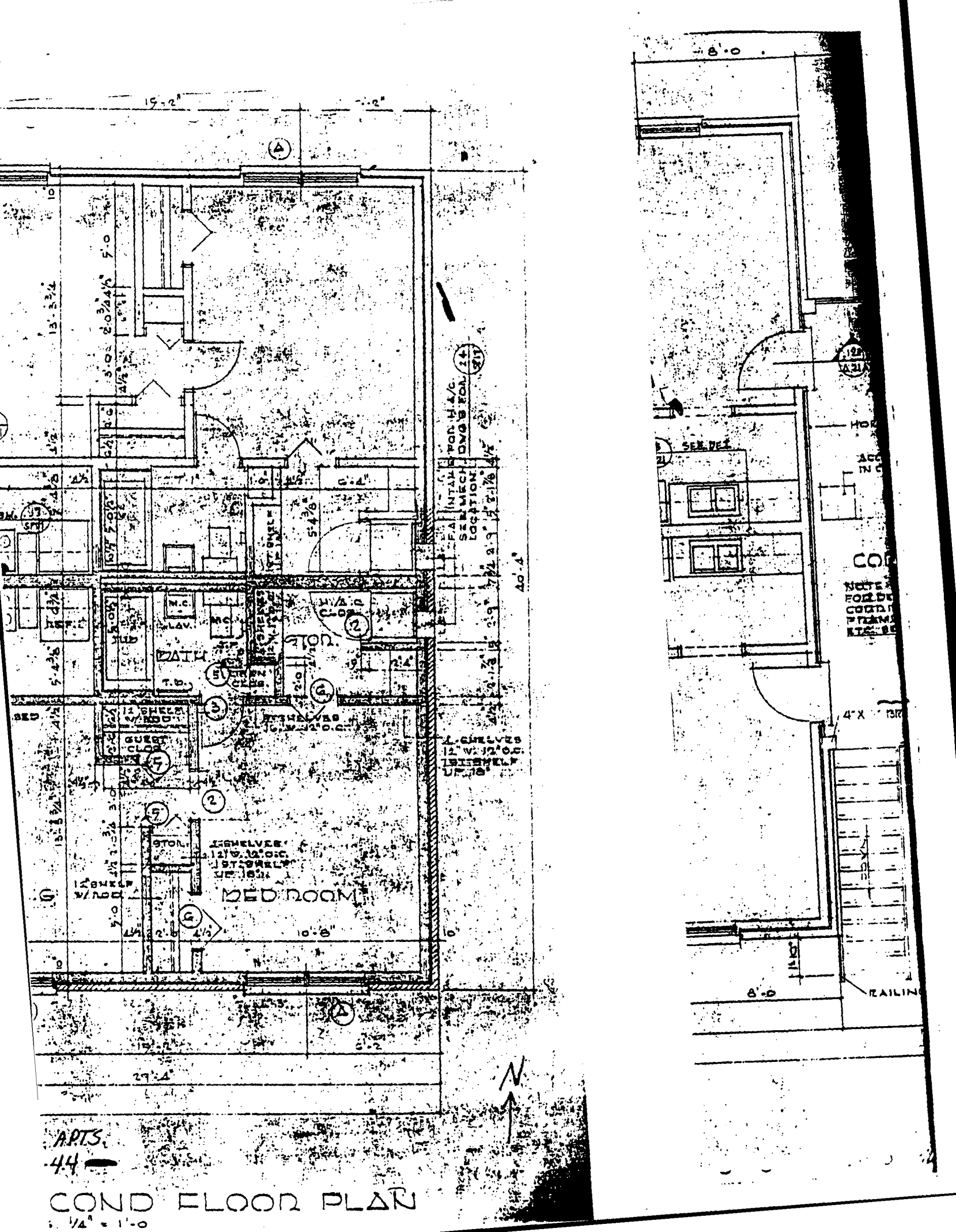
HYDRANT LOCATION Bernal at Park

PERSONNEL RESPONDING:
1. Buck Kennedy
2. [illegible]
3. Mike Bailey
4. Tommy Ramsey
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. Clentis Turnbow
10. Jim Williams
11. Jackie Duncan
12. John Allberg
13. Larry Myatt
14.
15.
16.
17.
18.
19.
20.

DISPATCHER Clentis Turnbow

FUEL USED TOTAL


INDIAN Hills VILLAGE
N
Area of origin
UPSTAIRS LEVEL
DOWNSTAIRS LEVEL CONSISTS OF: Left A-37, A-3 Right A-39, A-4
FRONT
Down stairs
FRONT
A & C units at this location have to be entered through 2nd entrance.
1st Entrance
Indian Hills Village
2nd Entrance
Parking Lot
Doone
Bernal



APTS.

44

COND FLOOR PLAN

1/4" = 1'-0

COMMONWEALTH OF KENTUCKY
PUBLIC SERVICE COMMISSION
730 SCHENKEL LANE
POST OFFICE BOX 615
FRANKFORT, KY. 40602
(502) 564-3940

February 12, 1996

Mr. John Amburg
Public Works Director
Hickman Gas System
P. O. Box 230
Hickman, KY 42050

Dear Mr. Amburg:

Attached is a copy of the 1996 comprehensive inspection of the natural gas facilities of Hickman Gas System which was performed by Michael C. Nantz on February 8 and 9, 1996.

Please respond to this report by March 18, 1996, outlining a correction schedule of the cited deficiencies for Commission approval.

If you have any questions or need additional information, please contact Michael C. Nantz at 502/564/3940.

Sincerely,

E. Scott Smith By LLA

E. Scott Smith, Manager
Gas Pipeline Safety Branch

ESS:MCN:dcp
9606000
Attachment

COMMONWEALTH OF KENTUCKY
PUBLIC SERVICE COMMISSION

COMPREHENSIVE INSPECTION REPORT

HICKMAN GAS SYSTEM
Hickman, Kentucky

February 12, 1996

BRIEF

A comprehensive inspection of the natural gas facilities of the Hickman Gas System ("Hickman") was conducted on February 8 and 9, 1996. This inspection was conducted in accordance with the Public Service Commission's ("PSC") policy of inspecting all local gas distribution companies under its jurisdiction. Natural gas operators are jurisdictional to the PSC under KRS 278.040 and also through a 5(a) Agreement with the United States Department of Transportation, Office of Pipeline Safety, for the enforcement of the Natural Gas Pipeline Safety Act of 1968.

INSPECTION

A review was made of Hickman's Operating and Maintenance, Emergency, Damage Prevention, and Anti-Drug Plans during the office portion of the inspection. Also during the office visit, records were reviewed concerning the leak survey, system patrolling, odorization, valve maintenance, and regulator and relief valves. Nine deficiencies were found during the office inspection and will be addressed in the findings section of this report.

During the field inspection, a cathodic protection survey was conducted along with checks on main line valves and residential and commercial meter settings. Pipe-to-soil readings were also taken

on the steel portions of the system. No deficiencies were found during the field inspection.

I was accompanied by John Amburg on this inspection.

FINDINGS

1. The Operating and Maintenance (O&M) Plan does not provide adequate instructions for employees to perform procedures during normal operations and repairs as required by 807 KAR 5:022, Section 13(3)(a).

2. No annual maintenance of regulators and relief valves as required by 807 KAR 5:022, Section 14(21).

3. No patrolling records as required by 807 KAR 5:022, Section 14(12).

4. No annual maintenance on main line valves as required by 807 KAR 5:022, Section 14(25).

5. System map is not adequate to show location and size of the natural gas system as required by 807 KAR 5:006, Section 2.

6. No damage prevention program as required by 807 KAR 5:022, Section 13(8).

7. Use of line markers is not adequate as required by 807 KAR 5:022, Section 14(5).

8. Cathodic protection rectifier has not been inspected six times annually as required by 807 KAR 5:022, Section 10(9)(b).

9. Cathodic protection surveys are not performed within a 15-month period as required by 807 KAR 5:022, Section 10(9)(a).

RECOMMENDATIONS

It is recommended that Hickman:

1. Include adequate instructions in the O&M Plan to employees regarding procedures required to perform normal operations procedures and repairs.

2. Develop procedures to maintain regulators and relief valves annually and keep records.

3. Maintain patrolling as required.

4. Inspect all main line gas valves in the system and maintain records as required.

5. Prepare a map showing the location and size of the gas facilities.

6. Develop a written damage prevention program.

7. Install and maintain an adequate number of line markers on the system.

8. Develop a program to inspect the rectifier six times annually.

9. Have a cathodic protection survey completed as soon as possible.

It is further recommended that Hickman maintain and lock the building that houses odorization equipment to prevent unauthorized entry and possible damage to odorization equipment.

It is further recommended that Hickman conduct a leak survey on the business district as soon as practicable. The 1995 leak survey indicated various grade 1 leaks that the operator indicated

had been repaired, but could offer no records to support. The leak survey company recommended a course of action to repair and then to follow up with an additional leak investigation which has not been done.

It is further recommended that the operator purchase leak survey equipment to allow for proper investigation and grading of leaks found on the system.

It is further recommended that a program be developed for painting of meter sets to reduce the possibility of future atmospheric corrosion problems.

It is further recommended that all leaks found on the system be recorded including how and when leaks are repaired.

It is further recommended that a copy of this report be sent to Hickman directing that it respond by March 18, 1996 with a schedule of compliance to the deficiencies cited for Commission approval.

Respectfully submitted,

LLA

Michael C. Nantz
Gas Utility Investigator

MCN:dcp

ORDINANCE NO. 92-5 SUMMARY

AN ORDINANCE OF THE CITY OF HICKMAN, KENTUCKY PROVIDING FOR ALCOHOL AND DRUG TESTING OF APPLICANTS FOR EMPLOYMENT, EMPLOYEES OF THE CITY'S GAS SYSTEM, AND CERTAIN OTHER EMPLOYEES; PROVIDING FOR CONSENT TO TESTING AND EFFECT OF REFUSAL TO CONSENT; DISCIPLINARY ACTION; RIGHT TO A HEARING; REFERRAL TO AN EMPLOYEE ASSISTANCE PROGRAM; PRIVACY IN DRUG TESTING; AND PROVIDING FOR SEVERABILITY AND EFFECTIVE DATE

This ordinance provides for the testing of employees and applicants for employment. Employees of the gas system will be tested on an annual random basis. Applicants for employment will be tested prior to their appointment. Other employees will be tested only where there is a reasonable suspicion that they are under the influence of alcohol or drugs during working hours, or after they have been involved in an accident. No one may be tested without his consent. Refusal to consent, however, will result in a denial of employment or, in the case of employees, disciplinary action up to and including dismissal.

Should an employee have a confirmed positive test result, he or she is entitled to a hearing before a hearing officer. Supervisors and department heads shall be given training in a program that will enable them to recognize the conduct and behavior that gives rise to a reasonable suspicion.

The ordinance makes provision for an employee assistance program for the assessment, counseling and rehabilitation of employees. This program shall be entered by an employee on a voluntary basis.

All information from an applicant's or employee's confirmed positive test result is confidential and shall be distributed to supervisory personnel only on a need to know basis.

Given first reading on October 14th, 1991.

Enacted following second separate reading on November 11, 1991.

Judy C. Powell
Mayor

Attest:

Donna Hussey
City Clerk

CERTIFICATE

I certify, pursuant to KRS 83A.060(9), that the foregoing summary of Ordinance No. 92-____ accurately summarizes the contents of said Ordinance.

Dated: October 14, 1991.

Corporate Counsel

ORDINANCE NO. 92-5

AN ORDINANCE OF THE CITY OF HICKMAN, KENTUCKY PROVIDING FOR THE DRUG AND ALCOHOL TESTING OF APPLICANTS FOR EMPLOYMENT WITH THE CITY, EMPLOYEES OF THE GAS SYSTEM AND OTHER EMPLOYEES; CONSENT; EFFECT OF REFUSAL OF AN EMPLOYEE OR APPLICANT TO GIVE CONSENT; REFERRAL TO AN EMPLOYEE ASSISTANCE PROGRAM; DISCIPLINARY ACTION; PRIVACY IN DRUG AND ALCOHOL TESTING; ASSIGNMENT OF AGENCIES; SEVERABILITY; AND EFFECTIVE DATE

WHEREAS the City recognizes that it has a legal responsibility and management obligation to insure a safe working environment as well as a paramount interest in protecting the public by insuring that its employees have the physical stamina and emotional stability to perform their assigned duties; and

WHEREAS the City is required by federal law (49 CFR 199) to drug test all employees of its gas system, and deems it advisable to drug test all other employees and applicants for job openings; and

WHEREAS federal law further requires each operator to provide an Employment Assistance Program to educate personnel concerning prohibited drugs, the policy against their use, the assistance available and to train supervisors in indications of drug use which policy shall be included in each employee's personnel policy manual,

NOW THEREFORE, BE IT ORDAINED BY THE CITY OF HICKMAN, KENTUCKY AS FOLLOWS:

Section 1. Drugs to be tested for

When drug and alcohol screening is required under this policy, a urinalysis test will be given to detect the presence of the following drug groups:

a. Alcohol (ethyl)
b. Amphetamines (e. g. speed)
c. Barbituates (e. g. amobarbitol, butabarital, phenobarbital, secobarbital)
d. Cocaine
e. Methaqualone (e. g. Quaalude)
f. Opiates (e. g. codiene, heroin, morphine hydromorphone, hydrocodone)
g. Phencyclidine (PCP)
h. Marijuana (THC)

Section 2. Job Applicant Testing: General Standard

Applicants for employment with the City will be required to undergo a drug and alcohol test upon an offer of employment and prior to their final appointment.

Section 3. Current Employment Testing: General Standard

The City may require a current city employee to undergo drug and alcohol testing if there is reasonable suspicion that the employee is under the influence of drugs or alcohol during work hours. The term "reasonable suspicion" means an articulable belief based on specific facts and reasonble inferences from those facts that an employee is under the influence of drugs or alcohol. Circumstances which constitute a basis for determining "reasonable suspicion" may include, but are not limited to:

a. a pattern of abnormal or erratic behavior;
b. Information provided by a reliable and credible source;
c. a work related accident;
d. direct observation of drug or alcohol use; or
e. presence of the physical symptoms of drug or alcohol use (i. e. glassy or bloodshot eyes, alcohol odor on breath, slurred speech, poor coordination and/or reflexes).

Supervisors are required to detail in writing the specific facts, symptoms or observations which form the basis of their determination that reasonable suspicion exists to warrant the testing of an employee. This documentation shall be forwarded to the appropriate department head or designee.

All employees involved in an accident will be required to be tested. The employee will be tested as soon as possible after the accident, preferably no later than 24 hours after the accident.

The term "accident" means physical injury to self requiring medical treatment other than normal first aid, damage to property owned by the City, physical injury to others requiring medical treatment due to the incident and/or physical damage to property not owned by the City due to the incident.

All reasonable steps will be taken to obtain a urine sample from an employee after an accident. In case of a conscious but hospitalized employee the hospital or medical facility will be required to obtain a sample and if necessary, collect the sample from an unconscious employee.

Section 4. Supervisor Training

The City shall develop a program of training to assist supervisory personnel in identifying drug and alcohol use among employees. Such training shall be directed towards helping supervisors recognize the conduct and behavior that give rise to a reasonable suspicion of drug or alcohol use.

Section 5. Prior Notice of Testing Policy

The City shall provide written notice of its drug and alcohol testing policy to all employees and job applicants. The notice shall contain the following information:

a. the need for drug and alcohol testing;
b. the circumstances under which testing may be required;
c. the procedure for confirming an initial positive drug test result;
d. the consequences of a confirmed positive test result;
e. the consequences of refusing to undergo a drug and alcohol test;
f. the right to explain a positive test result and the appeal procedure available; and
g. the availability of drug abuse counseling and referral services.

This policy provides the required notice.

The City shall administer to each gas system employee every 12 months a number of random drug tests at a rate equal to 50% of its gas system employees. The City will select gas system employees for testing by using a random number table or a computer based random number generator that is matched with an employee's social security number or other appropriate identification number.

During the first 12 months following the implementation of random drug testing on gas system employees only, the City will meet the following conditions:

a. The random drug testing is spread reasonably through the 12 month period;
b. The last test collection during the year is conducted at an annualized rate of 50%;
c. The total number of tests during the 12 months is equal to 25% of the covered employees.

Section 6. Consent

Before any drug and alcohol test is administered, employees and job applicants will be requested to sign a consent form authorizing the test and permitting release of test results to those City officials with a need to know. The consent form shall provide space for employees and applicants to acknowledge that they have been notified of the City's drug testing policy and to indicate current or recent use of prescription or over-the-counter medication.

The consent form shall also set forth the following information:

a. The procedure for confirming an initial positive test result;
b. The consequences of a confirmed positive test result;
c. the right to explain a confirmed positive test result;
d. the consequences of refusing to undergo a drug and alcohol test.

An employee using a prescription or nonprescription drug which may in any way affect his or her job performance shall notify his or her supervisor of the use of the drug and its possible effects.

Section 7. Refusal to Consent: Applicant

A job applicant who refuses to consent to a drug and alcohol test will be denied employment with the City.

Section 8. Refusal to Consent: Employees

An employee who refuses to consent to a drug or alcohol test when reasonable suspicion of drug or alcohol use has been identified is subject to disciplinary action up to and including termination of employment. The reason(s) for the refusal shall be considered in determining the appropriate disciplinary action.

Section 9. Confirmation of Test Results

An employee or job applicant whose drug test yields a positive result shall be given a second test using a gas chromotography/mass spectometry (CG/MS) test. The second test shall use a portion of the same test sample withdrawn from the employee or applicant for use in the first test.

If the second test confirms the positive test result, the employee or applicant shall be notified of the results in writing by the appropriate department head or designee. The letter of notification shall identify the particular substance found and its concentration level.

An employee or applicant whose second test confirms the original positive test result may, at the employee's or applicant's consent, have a third test conducted on the same sample at a laboratory selected by the City.

Section 10. Consequences of a Confirmed Positive Test Result

Applicants: Job applicants will be denied employment with the City if their initial positive test results have been confirmed. Applicants will be informed in writing if they are rejected on the basis of a confirmed positive test result.

Employees: If an employee's positive test result has been confirmed, the employee is subject to disciplinary action up to and including termination. Factors to be considered in determining disciplinary response include the employee's work history, length of employment, current job performance, and the existence of past disciplinary actions. No disciplinary action shall be taken against employees who voluntarily identify themselves as drug users, obtain counseling and rehabilitation through the City's Employee Assistance Program, and thereafter refrain from violating the City's policy on drug and alcohol abuse.

Section 11. The Right to a Hearing

If an employee's positive test result has been confirmed, the employee is entitled to a hearing before any disciplinary action may be taken by the City. The employee must make a written request for a hearing to the appropriate department head or designee within 5 working days of receipt by the employee of the confirmation of test results. Employees may be represented by legal counsel, present evidence and witnesses on their behalf, and confront and cross examine the evidence and witnesses used against them.

No adverse personnel action may be taken against an employee based on a confirmed positive drug test result unless the hearing officer finds by a preponderance of the evidence that:

a. the employee's supervisor had reasonable suspicion to believe that the employee was under the influence of drugs or alcohol while on the job; and

b. the employees test results are accurate.

Section 12. Return to Duty Testing

An employee who refuses to take or does not pass a drug test may not return to duty until the employee passes a drug test administered under this policy and the medical review officer has determined that the employee may return to duty. An employee who returns to duty shall be subject to a reasonable program of follow up drug testing without prior notice for not more than 60 months after his or her return to duty.

Section 13. Mandatory EAP Referral

Upon the first confirmed determination that an employee is under the influence of drugs or alcohol, the City shall refer the employee to an Employee Assistance Program for assessment, counseling and rehabilitation. Participation in an EAP is voluntary and no disciplinary action may be taken against an employee for failure to begin or complete an EAP program. Disciplinary action based on a violation of the City's drug and alcohol policy is not automatically suspended by an employee's participation in an EAP amd may be imposed when warranted.

Section 14. Confidentiality of Test Results

All information from an employee's or applicant's drug and alcohol test is confidential and only those with a need to know are to be informed of tests results. Disclosure of test results to any other person, agency or organization is prohibited unless written authorization is obtained from the employee or applicant. The results of a positive drug test shall not be released until the results are confirmed. The records of unconfirmed positive test results and negative test results shall be destroyed by the testing laboratory.

The City shall keep the following records concerning drug testing:

a. records that demonstrate the collection process conforms to this policy must be kept at least three (3) years.

b. records of employee drug testing results that show employees failed a drug test, and the type failed (e. g. post-accident) and records that demonstrate rehabilitation, if any, must be kept for at least five (5) years.

c. records of employee drug test results that show employees passed drug tests must be kept for at least one (1) year

d. a record of the number of employees tested, by type of test, must be kept for at least five (5) years

e. records confirming that supervisors and employees have been trained as required by this policy must be kept for at least three (3) years

Section 15. Privacy in Drug Testing

Urine samples shall be provided in a private restroom stall or similar enclosure so that employees and applicants may not be viewed while providing samples. Bags, briefcases, purses and other containers may not be carried into the test area. The water in the commode shall be colored with blue dye to protect against dilution of test samples.

Section 16. Laboratory Testing Requirements

All drug and alcohol testing of employee and applicants shall be conducted at medical facilities or laboratories selected by the City. To be considered as a

testing site a medical facility or lab must submit in writing a description of the procedures that will be used to maintain test samples. Factors to be considered by the City in selecting a testing facility include:

a. testing procedures which insure privacy to employees and applicants consistent with the prevention of tampering;

b. methods of analysis which insure reliable test results, including the use of gas chromtography/mass spectrometry to continue positive test results;

c. chain-of-custody procedures which insure reliable results on confirmatory tests of original samples;

d. the laboratory must be certified by the Department of Health and Human Services under the DOT procedures.

Section 17. Appointment of a Medical Review Officer

The City will appoint a Medical Review Officer (MRO) as outlined in 49 CFR 199, Part 199.15.

Section 18. Positions tested Under 49 CFR 199

The following positions will be tested under the federal law and DOT standards:

Public Works Director
Laborer
Heavy Equipment Operator
Wastewater Plant Operator
And any additional employees used in the gas system

Section 19. Agencies Involved

Collection Agency
Parkway Regional Hospital, Fulton, KY

Testing Laboratory
Memphis Pathological Laboratory, Memphis, TN

Medical Review Officer
Dr. Richard H. White, Hickman, KY

Employee Assistance Program Provider
The Laurel Center, Fulton, KY

Section 20. Publication

This ordinance shall be published in summary form as permitted by KRS 83A.060(9) on the basis of a summary certified by corporate counsel.

Given first reading, in summary form pursuant to KRS 83A.060(4), on October 14, 1991.

Enacted following second separate reading in summary form on November 11, 1991.

Judy C. Powell
Mayor

Attest:

Donna Haney
City Clerk

Old O&M Plan

HICKMAN GAS SYSTEM

INSPECTION, OPERATION & MAINTENANCE PROCEDURES

1. DISTRIBUTION PIPING MAINTENANCE

A. Patrolling

Distribution mains and/or services which are installed in locations or on structures where abnormal physical movement or abnormal external loading could cause failure or leakage shall be patrolled periodically. How often shall be determined by the conditions which could cause failure or leakage and be a hazard to public safety. All bridge crossings will be inspected at least once a year.

Transmission lines (mains with a hoop stress of 20% or more of its specified minimum yield strength) shall be patrolled on a regular basis as determined by local conditions, but at intervals not exceeding those prescribed in the following table.

CLASS LOCATION OF TRANSMISSION LINE	MAX. INTERVAL B/T PATROLS AT HIGHWAY & R.R. CROSSINGS	ALL OTHER PLACES
1,2	6 months	12 months
3	3 months	6 months
4	3 months	3 months

2. LEAK SURVEYS

A. Classification

Leak analysis is not an exact science, but rather a judgement decision. Some of the individual grade classifications do not have precise limits because of the variable nature of the variable nature of the factors involved.

Grade classifications shall only be made by persons who possess training experience, and knowledge gained through associations with leak work. The judgement of these persons based upon

information gained at the scene of the leak will form the basis for the classification.

Percentages of gas-in-air are based on natural gas. Where other gases are involved, appropriate adjustment will be made as may be required, consistent with the lower explosive limit (L.E.L.) of such gas or mixture of gases.

DEFINITIONS

a. Blowing Gas - A leak which can be heard seen or felt.

b. Building - Any structure which is normally occupied by people for business, residential or other purposes

c. Follow-up Inspection - Any inspections performed after a repair procedure has been completed in order to determine the effectiveness of the repair.

d. Manhole or Vault - An underground structure that a person can enter.

e. Reading - Assumed to be the stabilized reading taken on a COMBUSTIBLE gas indicator.

f. Tunnel - An underground passageway of sufficient size so that a man can enter.

LEAK REPAIR RECORDS

A leak repair record shall be used for the entire history of a leak through the "follow-up" inspection. The record shall contain information as to corrective action taken and follow-up results when such follow-up is deemed necessary by the operator. Leaks may only be reclassified by responsible and suitable experienced persons whose identification shall appear on the record.

GENERAL STATEMENT

Any leak or odor call from the general public, police, fire or other authorities, or notification of damage to facilities by contractors or other outside sources shall constitute the need for prompt action. Prompt action in some instances may require implementation of the emergency manual.

GRADE CLASSIFICATION

Grade 1 Leak is a gas leak which, due to its location and/or relative magnitude constitutes a potentially hazardous condition

to the public or buildings. Grade 1 leaks include, but are not limited to:

a. Any indication of gas entering buildings or tunnels.
b. Any reading of foundation wall of a building, which, in the judgement of the operator is potentially dangerous.
c. Any reading of at least 4% or greater gas-in-air on a sidewalk in a wall-to-wall paved area where the colume of the leak presents a potential hazard to persons or property.
d. Blowing gas.
e. A leak from a transmission line within Class 3 and 4 locations as specified in Part 192.5 of the OPS regulations.
f. 4% greater gas-in-air reading in manholes, vaults, or catch basins.
g. Any leak, which, in the judgement of the company representative at the scene, is regarded as potentially hazardous.

Action Required:

It shall require corrective action which shall consist of immediate effort to protect life and property, and continuous action until the conditions is no longer hazardous and scheduled for immediate daily repair activity. Location of the leakage is to be considered and priority of repair given according to location and seriousness.

Grade 2 Leak shall be a leak that does not constitute an immediate hazardous condition to the public or buildings, but shall be of a nature requiring scheduled repair. Grade 2 leaks include, but are not limited to:

a. Transmission line leaks not classified as Grade 1 leaks.
b. A leak on a valve or appurtenance which has migrated beyond the valve box, which, in the judgement of the operator required scheduled repair.
c. Readings between 2% and 4% gas-in-air on a sidewalk in a wall-to-wall paved area where the volume of the leak presents a potential hazard to persons or property.

d. Any reading between 2% and 4% gas-in-air in a manhole, vault or catch basin.

e. Any Grade 3 leak, which, under frost conditions could migrate substantially.

f. A high density of Grade 3 leaks in the street of a business or residential area.

Action Required:

Grade 2 leaks shall be scheduled for repair whithin 12 months or shall be rechecked during the next annual survey. Rechecked Grade 2 leaks that have not deteriorated may be re-scheduled for repair if they are not in a hazardous location and the repair would be difficult or expensive. Location of the leakage is to be considered and priority or repair given according to locations and seriousness.

Grade 3 Leak is any other leak not classified as either Grade 1 or Grade 2 leak and is non-hazardous at the time of detection and can be reasonable expected to remain non-hazardous.

Action Required:

Grade 3 leaks shall be re-evaluated at the next scheduled survey.

B. Downtown District

There shall be a Gas Detector Survey annually of all gas, electric, water, telephone and sewer manholes in the downtown district at least once each year. This survey will be of the foot patrol variety and leak surveyor will check all openings and cracks encountered in those streets. There will be a map kept up-to-date which will signify the downtown district.

The above survey may be replaced with a flame ionization survey of the back pack variety or a manhole type survey.

There will be a basement survey of all major downtown buildings at least once a year. This will be a foot patrol survey with the leak survey or using a Gas Detector. A record of those basements checked, the date and conditions found will be kept on file for 3 years.

Any leakage that is classified as a Grade 1 or Class "A" leak will be reported by the surveyor immediately to the Gas

Superintendent. The Superintendent shall dispatch a repair crew at once to the location of the leak. This crew will repair the leak, or after investigation by barhole survey or other appropriated means, re-classify the leak and notify the superintendent, who will schedule the repair at a later date.

If the leak surveyor discovers an explosive mixture in any manhole, he will notify the Superintendent, who will dispatch a repair crew at once to investigate the leak, if the leak crew is unable to repair the leak at once, the Superintendent will notify the appropriate owner of the manhole by telephone, and later by letter, of the dangerous condition. The conditions reported in the letter will be in effect until the repair crews have eliminated the hazard. The appropriate party shall be notified by letter after the leakage has been stopped.

All leaks judged to be in the Grade 2 or Class "B" category shall be reported to the Superintendent.

Grade 3 or Class "C" leaks shall be reported and scheduled similar to Grade 2 leaks.

C. Business Districts Other Than The Downtown Districts

There shall be a Gas Detector Survey of all manholes and street openings in these sections at least once each year. The surveyor shall be familar with the locations of those streets where the gas mains are located in easements and shall survey the easements, particularly those easements in the suburban shopping centers.

The above survey may be replaced with a flame ionization survey of the back pack variety or a mobile type survey. Those leaks detected shall be reported and repaired in accordance with the provisions outlined in the downtown district survey.

D. Light Commercial, Residential And Rural Districts

There shall be a flame ionizations or vegetation survey of these areas at least once each five (5) years. The type survey shall be determined by the Gas Superintendent each year.

Additional surveys or more frequent surveys are at the discretion of the Superintendent.

E. School Services

All gas services to both public and private schools shall be surveyed once each year with a flame ionization unit, gas detector with barholing, or by vegetation survey.

F. Transmission Lines

Pipelines operating at a hoop stress of 20% or more of specified minimum yield strength (S.M.Y.S.) shall have a leak survey annually. Lines in this category are listed under patrolling.

Note: This to be determined by calculation from their pipe size and operating pressure.

3. REPAIR PROCEDURE

Hazardous leaks or damages to a gas line that can cause an imperfection in the gas line, that in the judgment of the company personnel could create a hazardous condition, must be repaired. When deemed appropriate, temporary measures may be used to protect gas lines and the public. Temporary repair must be followed with a permanent repair as soon as feasible.

Some gas lines may currently operate at reduced pressure. Any permanent repair shall be made using material and procedures that will not downgrade the M.A.O.P. pressure of the line. The Superintendent should be consulted if there is any question regarding materials or procedures to be used.

The maintenance of mains and services shall consist of testing, repair, protection and replacement of the component parts. Plastic pipe and/or copper tubing insert renewals may be used as a method of renewal only on a standard and medium pressure systems, or lines with a M.A.O.P. of 50# psig or less.

Clamps and sleeves installed in mains and services shall be used and installed in accordance to manufacturers recommendation within the limits prescribed under the DOT-OPSO. They shall be tested using soap suds bubble test.

When a condition of a main or a service, as indicated by leak frequency records or visual observation, deteriorates to the point where it should not be retained in service, it will be replaced, reconditioned, or abandoned.

4. ABANDONING OF DISTRIBUTION FACILITIES

When a gas main or service is abandoned, the Superintendent shall determine the necessity of purging the line, taking into consideration location and size of the main or service. Air or inert gas may be used for purging or the facility may be filled with water or other inert material.

A. Services - Services should be abandoned at the main. When a service is abandoned it shall be capped or plugged at the customers end and the street end of the service. This may be accomplished by capping or plugging by mechanical means, cement or other suitable material.

If service is to be used in the near future, this may be done at the curb or some suitable location.

B. Main - Each dead end of an abandoned main shall be plugged with cement, expanding plastic or other material to effect the gas type seal. In absence of a suitable internal seal, the main shall be capped or welded closed.

C. Mains with Attached Services - Where a main and its attached services are to be abandoned, the customer end of the service shall be treated as in A above and the main end as in B above.

D. Valve Boxes - All gas valve boxes, including cock boxes, shall be removed from the abandoned line or the box shall be filled with sand or suitable substitute and the top closed with cement or other suitable material. In no case shall valve box lid remain in place on abandoned lines.

5. TEST REQUIREMENTS

A. General - Each new pipeline, mains and service line including piping and assemblies associated with regulator stations of similar facilities, must be pressure tested to substantiate the proposed M.A.O.P. and to insure that no potentially hazardous leaks exist. These requirements also apply to relocated and replaced segments.

Welds used to tie in a tested segment of a pipeline are exempted from the test requirements where it is not practical to test them. However, the soap suds test should be used at system pressure.

Fittings used to tie in a tested segment of pipeline are exempted from the pressure test requirements where it is not practical to test them. However, the soap suds test should be used at system pressure.

If a component other than pipe is the only item being replaced or added to a pipeline, a street test after installation is not required. If the manufacturer of the component certifies that:

(1) the component was tested to at least the pressure required for the pipeline to which it is being added; or,

(2) the component was manufactured under a quality control system that insures that each item manufactured is at least equal in strength to a prototype, in that the prototype was tested to at least the pressure required for the pipeline to which it is being added.

Components in this category should be given a soap suds test, if it is practical. With the hydrostatically testing, the affects of differences in elevation must be compensated for. Regardless of elevation changes, the required minimum test pressure should be maintained at all points in line for the duration of the test.

Volumetric content of the main is to be considered and the duration of the test determined (see the following table for short mains).

MINIMUM TEST PERIODS FOR SHORT MAINS TO OPERATE AT A HOOP STRESS BELOW 30% OF S.M.Y.S.

Length Medium Pipe Size	0 - 50 Ft.		50 - 125 Ft.		125 - 250 Ft.		250 - 500 Ft.		500 - 750 Ft.		750 - 1000 Ft.	
	Air	Hydro	Air	Hydro	Air	Hydro	Air	Hydro	Air	Hydro	Air	Hydro
1 1/2" or Less	5 Min.	5 Min.	30 Min.	5 Min.	1 Hr.	5 Min.	2 Hr.	10 Min.	3 Hr.	15 Min.	4 Hr.	15 Min.
2"	10 Min.	5 Min.	1.5 Hr.	5 Min.	2 Hr.	10 Min.	4 Hr.	20 Min.	6 Hr.	30 Min.	8	40 Min.
3"	15 Min.	5 Min.	3 Hr.	10 Min.	4 Hr.	20 Min.	8 Hr.	40 Min.	12 Hr.	1 Hr.	16	1.5 Hr.
4"	20 Min.	5 Min.	6 Hr.	20 Min.	8 Hr.	40 Min.	16 Hr.	1.5 Hr.	24 Hr.	2 Hr.	24	3 Hr.
6"	20 Min.	5 Min.	14 Hr.	45 Min.	18 Hr.	1.5 Hr.	24 Hr.	3 Hr.	24 Hr.	4.5 Hr.	24	6 Hr.
8"	20 Min.	5 Min.	24 Hr.	1.5 Hr.	24 Hr.	3 Hr.	24 Hr.	6 Hr.	24 Hr.	8 Hr.	24	8 Hr.

B. Records - A record shall be made, and retained for the useful life of the main, of each test performed under this section. The record must contain at least the following information:

(1) Operator's name.

(2) The name of the operator's employee responsible for making the test or the name of the contractor company and employee making the test.

(3) The test medium used.

(4) Test pressure.

(5) Test duration.

(6) Pressure recording charts, or other record of pressure reading.

C. Environmental Protection and Safety Requirements - In conducting tests under this section, every reasonable precaution should be taken to protect employees and the general public during testing. The test reading shall be disposed of in a manner that will minimize damage to the environment.

D. Test Requirements for Mains and M.A.O.P. at Overload 60 PSIG - Each new main that is to have a maximum allowable operating pressure of 60 psig or less will be tested, hydrostatically or with air or inert gas, to a pressure of at least 90 psig.

E. Test Requirements for Mains with M.A.O.P. Over 60 PSIG Through 175 PSIG - Each new main except plastic that is to have a maximum allowable operating pressure over 60 psig through 175 psig should be tested hydrostatically or with air or inert gas to a pressure of at least 265 psig.

F. A Test Requirement for Plastic Mains - Each plastic main must be tested with a pressure of at least 150% of the M.A.O.P. or 90 psig, whichever is greater. However, the maximum test pressure may not be more than 3 times the designed pressure of the pipe. The temperature in thermoplastic material must not exceed 100° F. during the test.

G. Steel and Copper Services - Each new and replacement service M.A.O.P. of 60 psig or less must be subjected to at least 90 psig test pressure prior to being put in service.

Each new and replacement service for the M.A.O.P. over 60 psig through 175 psig must be subjected to at least a 265 psig test pressure prior to being put in service. Both tests above may be done hydrostatically or with air or inert gas.

Each new and replacement service with M.A.O.P. over 175 psig is to be subjected to a test pressure of at least 150% of the M.A.O.P. Hydrostatic testing will be used.

For plastic services, the test pressure must be at least 150% of the maximum operating pressure of 90 psig, whichever is greater. The maximum test pressure may not exceed 3 times the designed pressure of the pipe or 150 psig. The temperatures of the thermoplastic material must not exceed 100° F. during the test.

This test will consist of pressurizing the service line after it has been welded and work completed except the final connection at the main. This test may be after the service is connected to the service tube and before the tube has been tapped, or it may be just prior to inserting service line in the trench. Any points or connections made after the test should be soap tested after the line has been pressurized with natural gas. The test shall consist of a drop test to be observed for a minimum of 5 minutes after the pressure has reached test pressure and the section to be tested is isolated from the pressurizing medium. If the service line shows no drop in pressure during this 5 minute period, the gauge will be removed and the service line considered acceptable. A notation such as "pressure tested to 100 pounds for five minutes" or an equivalent statement must be shown on the work order.

Services larger than 2 inches should be tested in accordance with the appropriate test requirements for mains.

6. CORROSION

A. Inspection, Operation and Maintenance Cathodic Protection

(1) All galvanic systems shall have protective current applied until cathodic voltage reaches a minimum of -0.85 volts.

(2) Each buried pipeline must be isolated from any other underground structure, unless the pipeline and the other structure are electrically connected and cathodically protected as one. Test and inspections must be made to insure isolation.

(3) All galvanic systems must be designed and installed so as to minimize any adverse affects on adjacent structures.

B. Monitoring and Testing

(1) Each pipeline under cathodic protection must be tested annually to determine if it meets acceptable requirements. At least 10% of all isolated services and short (less than 100 ft.) sections of mains will be surveyed each calendar year.

(2) Each rectifier or other impressed current power source will be inspected monthly.

(3) Each interference bond, diode or reverse current switch, will be inspected every two months.

(4) Each pipeline or protected system will have sufficient test points for adequate electrical measurements and required test.

(5) Remedial action will be taken where test or monitoring indicate a loss or substantial decline in protective current.

C. Corrosion Control Records

(1) Records or maps will be maintained to show the location of cathodically protected systems.

(2) Records of each test, survey or inspection will be maintained and in sufficient detail to demonstrate the adequacy of control measures.

(3) Records will be maintained on rectifiers, cathodic protected systems, and soil tests.

7. MAINTENANCE OF PRESSURE LIMITING DEVICES

A. Regulators

1. Major Regulators

(1) Once each month the regulator installation shall be visually examined for normality of performance and appearance. This inspection shall be dated and signed

(2) Annual minor inspections will be performed in which preventive maintenance methods will be carried out. Pull side plate, if applicable, clean the seats, clean filters, and perform any maintenance required.

(3) Major inspections at least once every five years. Each major regulator shall be disassembled and carefully examined for wear and effects.

(4) Monitoring of major district regulator shall be done by observing charts installed in various locations in the system. The Superintendent shall review these charts to determine that regulators are operating within set limits. Any malfunctioning regulator causing abnormal pressure shall be repaired promptly.

B. Above Ground Regulators

Twice a year pressures will be raised or lowered. Proper function of the regulator will be evaluated and any necessary corrections made. A major inspection will be made at least once every five years.

C. Residential or Small Commercial Regulators

Regulators supplying residential or small commercial customers shall be inspected for proper authorization each time the customer's gas meter is set or changed and each time a service call is made to a customer or where a malfunction of equipment has occurred. If the customer's regulator is found to have either an improper size orifice or not to have a full internal relief, it shall be replaced or proper order made to change regulators. Normally, a malfunctioning regulator will be replaced rather than a repair made on site. An exception would be for a regulator relief opening plugged with ice, dirt, etc.

D. Large Commercial and Industrial Regulators

Regulators supplying meters having a rated capacity in excess of 25,000 cubic feet per hour and/or serving customers where a malfunctioning regulator would cause serious inconvenience, shall be given a major inspection every five years. Specifically, such customers as colleges, hospitals, and certain industrial customers shall be given a major inspection at least every five years, preferable during test or shut down.

Exceptions: Where no regulated bypass is available, arrangements shall be to provide temporary or permanent means to do such major inspections.

RELIEF DEVICES

A. Relief Valve

All deadweight, spring or pilot operated relief valves installed at regulator stations shall be inspected annually to determine that they will operate at the set pressures. Relief valves connected directly to the system, that is, not a regulator station shall be likewise tested.

RECORDS

A. District Regulators

A drawing for each district regulator or other important distribution will show the piping arrangement, the make, type and size of the regulator.

A record shall be maintained showing the date for each minor and major inspection. This record shall also show any changes or repairs made. These records shall be maintained for a minimum of 5 years.

8. VALVE MAINTENANCE

A. Essential Distribution Valves

Valves 4 inches and larger should be inspected annually following the same procedure as outlined. A list of these valves shall be kept.

B. Other Distribution Valves

1. Main Line Valve - Valves, other than essential distribution valves, and gas mains classified as distribution mains shall be inspected, operated and lubricated at least once every 5 years. This inspection should consist of cleaning the valve box, operating the valve as much as possible, and greasing and lubricating the valve as needed. Inspection of each valve shall include the checking of listed locations and ensure that each underground control valve is in a valve box. If a corrected location is necessary, a valve card shall be completed and filed. A record of each inspection shall be kept for future reference.

2. School Service Line Valve - The underground valve in service line supplying schools, housing projects, other places of public assembly, and multi-story buildings shall be inspected every five years in he manner as prescribed for main line valves.

C. Valve Operation Procedures

Valves will always be checked as to the position before any work is performed. If the valve is in the open position, work should proceed, but if the valve is in the closed position, the foreman shall notify the Superintendent and receive clearance to open the valve or leave it in the closed position. The person on the scene shall take all available precautions to avoid accidently operating the valve during maintenance. The foreman shall make a practice of checking the valve after working is completed to determine the valve position. If valve has been accidently closed, do not change the valve position but notify the Superintendent at once of the situation. It should be determined if it is safe to operate the valve, but the decision to operate must be made by the Superintendent.

9. MAINTENANCE OF PRESSURE SURVEILLANCE DEVICES

Pressure Recording Charts

Field recorders shall receive an inspection annually and recalibration at least every twenty-four (24) months with records being kept as to "Found" and "Left" condition.

10. SAFETY PROCEDURES

A. General

Precaution shall be taken to prohibit smoking or other sources of ignition in an area where the leakage or presence of gas may constitute a hazard of fire or explosion. Applicable signs, warning devices and/or barricades shall be used as required. Traffic shall be routed as far away from the area as practicable. Welding shall only be performed in accordance with D.O.T. - O.P.S.O. Sub Part E. An effort shall be made to avoid any other known sources of accidental ignition.

B. Purging Gas Lines

1. Purging of Air

When a gas line full of air is placed in service, the air may be safely displaced with gas by introducing a moderately rapid rate of flow through the pipeline and out a vent at the opposite end. The flow shall be continued without interruption until the vented gas is free from air. The vent should then be closed. A pipeline pig or a slug of inert gas may be used to separate the gas and air to minimize the possibility of an explosive mixiture.

2. Purging of Gas

In cases where gas in a gas line is to be displaced with air and the rate at which air can be supplied to the line is too small to make a procedure similar to, but the reverse of, that described in A above feasible, a pipeline pig or a slug of inert gas shall be introduced to prevent the formation of an explosive mixture at the interface between gas and air. Nitrogen or carbon dioxide can be used for this purpose.

C. Welding or Cutting on Gas Lines

1. Air Filled

No welding or cutting will be done on a pipeline that contains air and is connected to a source of gas, unless a suitable means has been provided to prevent leakage of gas into the pipeline.

2. Gas Filled

Before any cutting or welding is done on a gas line that contains gas, it must be disconnected from all sources of gas and then purged with air, water or inert gas or the

operation may be carried out in accordance with the following procedure:

(1) Keep the gas line full of gas and maintain a slight flow of gas toward the point where cutting or welding is being done.

(2) Control the gas pressure at the point of cutting and welding with the blow-off valve or other suitable means.

(3) Close all slots or open ends immediately after they are cut with tape and/or a tight fitting canvas bag or other suitable material.

(4) Do not permit two openings to remain uncovered at the same time. This is double important if the two openings are at different elevation.

D. Open Ditches

1. Baricading

Any ditches left open shall be properly barricaded in accordance with applicable State, County or City requirements.

2. Safe Practices

Safe working practices such as shoring, testing for combustibles, entering ditches, use of tools, welding, torch cutting and coating, etc. shall be performed in accordance with the AGA Manual "Suggested Safe Practices for Distribution Men".

E. Procedures For Entering Confined Areas

Natural gas, unless properly handled, can be dangerous and it is well to bear this in mind at all times. The Superintendent in charge of the crew is required to see that the following safety precautions are observed.

1. Meter or Regulator Buildings

(1) All buildings will have prominent "No Smoking" signs permanently attached.

(2) Absolutely no smoking in meter or regulator buildings at any time.

(3) A workable fully charged fire extinguisher shall be off the truck and readily available whenever any work is being done.

(4) Precaution to be observed by persons entering building for other than repair or maintenance work, i.e. change charts, adjust pressures, take readings, etc.

a. Main door will remain open at all times.

(5) Precautions to be observed by persons entering building to do repair or maintenance work.

a. Notify the Radio Dispatcher before entering building to advise him of location, work being performed, and length of time you expect to be in the building.

b. Check atmosphere of building with combustible gas indicator when entering building.

c. All doors and windows are to be fully opened when any repair to maintenance work is being performed.

(6) Explosive Handling

To insure the safe handling, transporting, using, and storing of explosives in accordance with existing State, Federal and insurance company regulations, the rules set out in Appendix will be followed by all personnel.

11. SYSTEM UP GRADING PROCEDURES

A. Pipelines and Mains

Up-grading to less than 30% of the specified minimum yield strength. In no case shall the maximum allowable operating pressure be raised to a value higher than that permitted in D.O.T. - O.P.S.O. Sub. K for a new line constructed of the same material and in the same location class.

The condition of the line shall be determined by examination of maintenance records, field checks, leakage surveys, and surveys of materials and fittings in the line. Any material, valves, or fittings not capable of proposed new maximum operating pressure shall be removed prior to up-grading the line. If the past maintenance records show evidence of considerable leakage, a new leakage survey shall be conducted and all leaks repaired. On pipelines with coupled pipe, a study shall be made to insure all offsets, bends and dead ends are properly anchored or reinforced.

The rate of pressure increase to the new maximum allowable operating pressure shall be gradual to allow sufficient time for periodic observations of the system.

Records of investigation and work performed in preparation of the up-grading shall be maintained as long as the pipelines remains in service.

B. Distribution Lines

The up-grading procedure for all mains constructed of steel which have been previously operating as medium or high pressure mains shall be consistent with the provisions outlined for a pipeline which is to be up-graded to stress levels of less than 30% of the specified minimum yield strength. In addition, if the new maximum operating pressure is in excess of 60 P.S.I.G., the investigation shall determine that all service lines have regulators or other pressure limiting devices meeting the requirements of D.O.T.-O.P.S.O. (192.195,197) Sub. K.

The up-grading of any low pressure distribution system to an intermediate or higher system pressure shall be performed in compliance with D.O.T.-O.P.S.O. (192.557) Sub. K and any sections of this procedure that applies. No conversion shall take place until a written conversion plan has been prepared and approved by the Superintendent.

The up-grading operation must be conducted in a systematic manner to insure adequate safety of all concerned and to provide a minimum of outage for the customers. The pressure shall be raised in steps with adequate time allotted between steps to adequately check the affected facilities within the system being up-graded.

12. ODORIZATION

A. The gas in distribution lines must be odorized so that at a concentration in air of 1/5 of the lower explosive limit, the gas is readily detectable by a person with a normal sense of smell.

B. Periodic sampling of odorant level to assure proper concentration of odorant will be performed at least monthly or more often as deemed necessary.

Records of addition of odorant and periodic testing will be kept and mainted by the Superintendent or his alternate.

13. FAILURE INVESTIGATION

Failures or accidents will be investigated by the Superintendent/Fire/Police as applicable. More detailed investigation if warranted will be made up of
to determine the cause of the failure. When necessary, selected samples of a failed facility will be made available for laboratory examination.

14. DAMAGE PREVENTION PROGRAM

The Gas Department conducts an ongoing damage prevention program designed to prevent damage to our mains, service lines, and other gas facilities due to excavation activities. This program operates in three phases:

Public education; communication with persons or contractors who normally engage in excavation activities; and our own direct Pipeline Location Phone Program.

Various print and electronic media are used in our Public Education program to educate the public and contractors over the risks and costs involved in pipeline damage through excavation.

Communications links are also maintained via print media and phone contact with contractors in our area who normally engage in excavation work concerning the need for care, notification, and pipeline location before commencing such work. An indentification list of such contractors is maintained in the Gas Department.

Pipeline Location Phone whereby customers, contractors, or interested pereons may call direct to our Gas Department for the existence and location of gas mains or service lines in our system. The Pipeline Location Phone will be manned in the Gas Department during normal working hours. Emergency calls after normal business hours will be received and processed by our Police Dispatcher.

Implementing our Locating Program will be the responsibility of the Superintendent. Operating procedures to be followed in this program are listed below.

A. Any notification to the Gas Department of "excavation activities" including: excavation, blasting, boring, tunneling, backfilling, removal of above ground structures, or any other earth moving operations on or near our existing piping will be reason for receiving employee to complete the locating card.

B. Upon receipt of written or telephonic notice to Hickman Gas Department of "excavation activities" the name, address and telephone number of person or persons filing the notice of intent as well as the person responsible for the "excavation" will be retained as permanent record by the Gas Department.

C. After notification of "excavation:, a period of two (2) working days will be required before locating will be possible, unless prior agreement has been made for specific times at a later date.

D. After reasonable notice has been given to the Gas Department, all affected piping will be located and marked with yellow marking by company personnel. A record of marking will be retained for permanent filing. All such records will be kept on file in the Gas Department office.

E. Approximate location of a gas line shall be considered an area at least four (4) feet wide, but not wider than the utility facility plus two (2) feet on either side of the gas line. If there is any doubt of the location of the utility, it is the responsibility of the excavator to physically uncover the gas line with proper care and get an exact location.

F. Yellow marking on pavement or yellow marked stakes will be used as locating points. It is the responsibility of those persons doing the excavation to preserve and protect any such marks.

G. Visual inspection and wrapping, if necessary of any exposed gas piping will be done by Gas Department personnel after construction activity has been completed.

H. Follow up leakage surveys will be made in area where construction activities have taken place and where there is a possibility of settlement or stress related damage occurring at a later date.

Old Emergency Plan

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I N T R O D U C T I O N

This manual has been prepared to provide Hickman Gas Department employees with guide lines, call lists, communication data, equipment data, interruptible and large firm customers, and other date essential in an emergency situation.

It must be recognized that no emergency manual can cover all situations, that there is no substitute for the sould judgement of the situation by the person or persons involved, and that the safety and well being of the public must always be given prime consideration.

It is important that those who will have the responsibility of handling an emergency situation be familiar with the contents of the manual.

Corrections, deletions or amendments to this manual should be submitted to Gas Department Superintendent. Department heads are responsible for the accuracy of the information contained in the section devoted to their area.

This manual is to be used as an emergency format and does not contain operational data.

DEFINITION OF EMERGENCY INCIDENT

An "Emergency" condition exists when a designated Gas Department representative has declared that extraordinary procedures, equipment, manpower and supplies must be employed to protect the public from existing or potential hazards. These hazards may include, but are not limited to, the following:

1. Facility failures which result in:
   a) Underpressure in the system.
   b) Overpressure in the system.
   c) Large volumes of uncontrolled escaping gas.
   d) Fire or explosion, etc.
   e) Any leak considered hazardous.
   f) The continued safe operation of a major segment of the system is endangered.

2. Load curtailment conditions where it is necessary to meet unusual and exceptional conditions by the voluntary or mandatory reduction of gas usage by selected customers.

3. Natural disasters such as floods, hurricanes, earthquakes or other severe forces of nature which make emergency provisions necessary.

4. Civil disturbances or riots which require special procedures.

FIRE DEPARTMENT(S)

HICKMAN ( ) CHIEF_____

_____

_____

LIST BY SURROUNDING COMMUNITIES

POLICE DEPARTMENTS

AND

CIVIL DEFENSE

HICKMAN ( ) CHIEF_____

_____

_____

LIST ACCORDING TO SURROUNDING COMMUNITIES

COPIES OF EMERGENCY MANUAL

GIVEN TO THE FOLLOWING:

LIST, BY NAME, PERSONS WITH COPIES OF THE EMERGENCY MANUAL

ALVIS DEHART SR.
JAMES GREEN
CHARLES TOTTY
LARRY JONES

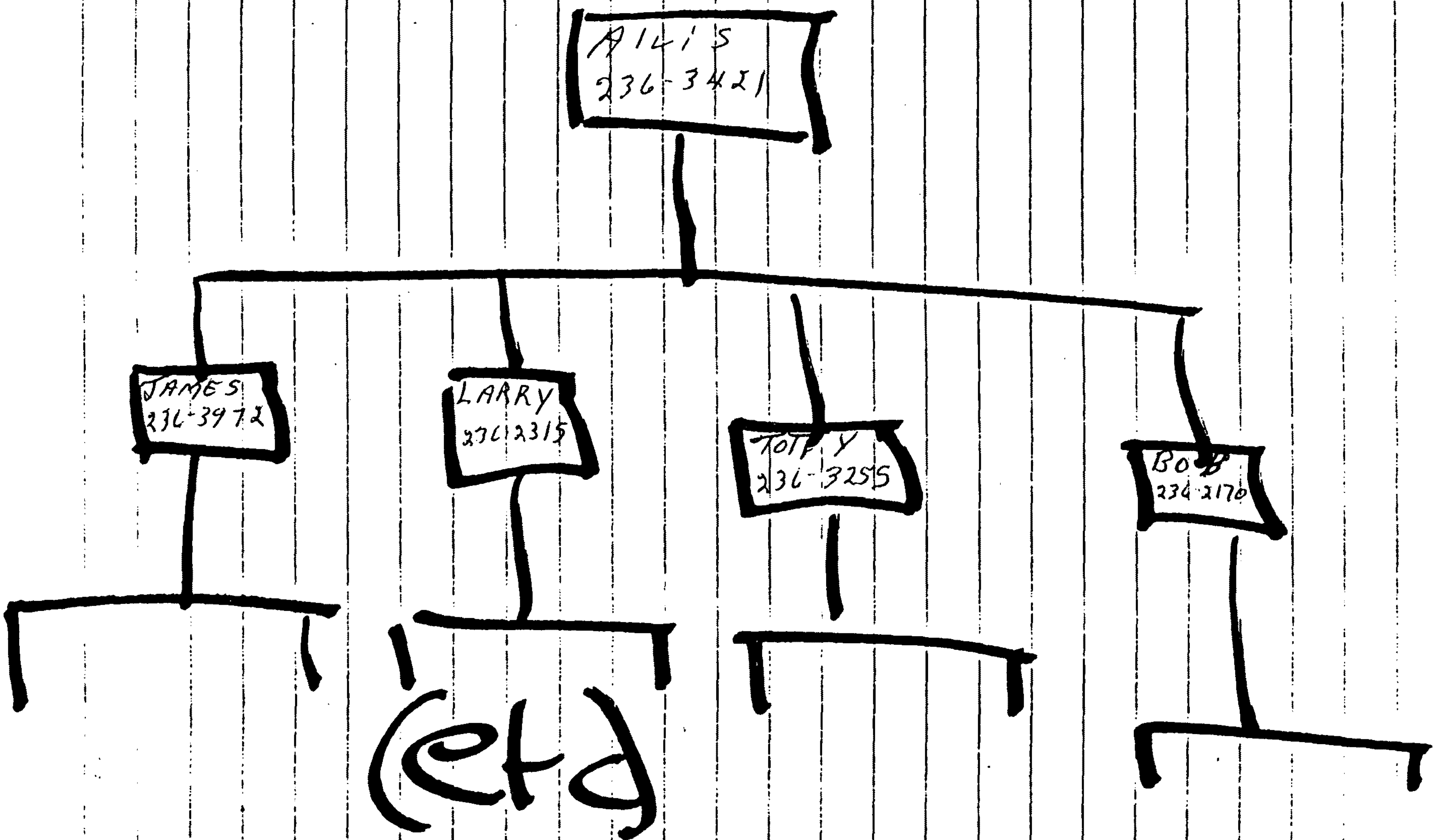
HICKMAN GAS DEPARTMENT

TELEPHONE & ADDRESS DIRECTORY

DAY PHONES: 236-3441 — 236-2535
236-2529

NIGHT PHONES: 236-3421
236-3972
236-2529
236-3255
236-2315

CALL CHART


236-3421
JAMES
236-3972
LARRY
236 2315
236-3255
BOB
236 2170
(ctd)

2

K E Y S

IN CASE OF EMERGENCY, CHECK WITH GAS DEPARTMENT SUPERINTENDENT FOR ACCESS TO KEYS.

KEYS

A duplicate set of keys to all valve vaults, regulator stations and meter stations is kept in the Police Sta. Office at the _____ Shop. These are all keyed-alike master locks using Key 3461 or _____. One should not, however, hesitate to break a lock if conditions warrant.

A complete set of keys to all doors, Police Sta. City Hall, located at 202 Jackson St., _____, is kept in the Clerk's Office and in the Police Department.

TRUNKLINE GAS PIPELINE COMPANY

GAS CONTROLLERS OFFICE

PHONE: (TO BE FILLED IN BY HICKMAN GAS DEPT.)

PERSONNEL:

HOME ADDRESSES AND PHONE NUMBERS:

LOCAL:

O P E R A T I O N O F V A L V E S

A gas distribution system is a complex network of interconnected mains, fed by regulators. Maximum allowable operating pressures in these mains may vary from approximately 1/2 pound to several hundred pounds. Before operating any valve that affects a section of the system, a study should be made to determine the effect upon the entire system. Improper operation of a valve may create a hazardous condition or cause a hazardous condition to become worse. Only properly authorized personnel shall operate valves. Fire, police, other officials, or other outside individuals are not authorized to operate valves or to instruct others, including gas company personnel, to operate valves.

This Emergency Manual contains the locations of the Kay valves in the Hickman Gas System. However, the system contains several valves and it would be impractical to list them all. All key valves in the system are treated as emergency valves and are inspected annually. Complete updated mapping of the system and the location of all valves may be found at the Hickman Gas Department. The Supervisor has maps of the system that show the general location of all valves. These maps are updated by the Department on a regular schedule, but may be slightly outdated. If there is any question of their accuracy, the Hickman Gas Departmen should be consulted.

VALVE LOCATIONS IN THE 4"

H.P. SUPPLY LINE

(IF MORE THAN ONE VALVE EXISTS, GIVE A WRITTEN DESCRIPTION OF EACH LOCATION; HICKMAN CAN SUPPLY THISINFORMATION OR WE CAN WRITE IT UP AFTER ONE VISIT.)

SYSTEM MAP

SHOWING VALVE LOCATIONS

(TO BE DRAWN)

(SEE ATTACHED EXAMPLE SHEET)

BREAK IN TRUNKLINE PIPELINE COMPANY'S

GAS PIPE LINE

If time permits, the person receiving notice of an interruption in the Trunkline Gas Pipe Line should have the call transferred to Mr. DEHART, Mr. GREEN, or Mr. TOTTY, provided one of these parties can be reached. If not, the person receiving the call should obtain the following information;

1. Nature of Interruption
2. Location.
3. Minimum pressure expected at Hickman Metering Station.
4. How fast pressure is expected to drop and probable duration of minimum pressure.

In the event pressure in Trunkline Gas Pipe Line is expected to drop such that action is deemed advisable, Mr. DEHART will dispatch men to REGULATOR Station with instructions to watch both inlet and outlet pressures and report conditions by radio periodically to the Hickman Gas Department.

Mr. DEHART will report to the Gas Dept. and the Gas Dept. will be considered the base of operations. In the event Mr. DEHART _____ is needed elsewhere, he will designate an alternate to act in his place. (Alternated for Mr. DEHART shall be Mr. TOTTY, Mr. JONES and Mr. RAY in order named.) In the event that it seems possible that the natural gas supply will be insufficient to meet the entire load, Mr. DEHART will

notify Mr. GREEN or Mr. MAYOR to stand by to make the necessary curtailment of large customers.

SEGRI CORP., should be notified in the event of any interruption so that he may watch his meters.

In the event there is to be complete outage of natural gas, inlet or outlet valves at the Hickman Metering Station will be closed and a radio equipped vehicle assigned to stand-by the valves to re-open when service is resumed.

NOTE: Key to Hickman Metering Station is in the POSSESION OF ALL EMPLOYEE'S Gas Regulator Station at UNION CITY. Hywy. Key will secure admisstion to Station.

INTERRUPTION IN 4" SUPPLY LINE

An interruption in the supply line could be due to three causes: (1) freezing of the regulators supplying the line, (2) a break in the line, or (3) sabbotage in the form of closed valves. If the trouble is due to regulation, the pressure gauge at the Trunkline meter station will so indicate.

In the event the sight gauge or pressure gauge shows that the inlet pressure at Hickman Regulator Station is dropping, Mr. DEHART or alternate, (Mr. TOTTY, Mr. JONES or Mr. RAY in order named), will dispatch one of the Gas Dept. employees to the Regulator Station, as the case may be. If either of these regulators are frozen or otherwise inoperative, the by-pass will be operated to maintain approximately 20 pounds in the summer and 40 pounds in the winter. As soon as possible the person at the scene of the trouble will report back to the Hickman Gas Department the condition found.

If the trouble is due to a leak or if there is a major break anywhere on the 4" supply line, the odds are some will report it by phone by the time it will be noticed by the company personnel. The person calling in will be able to give the location of the break, otherwise it will be necessary to patrol the line and report the location by radio to the Hickman Gas Department.

As soon as it becomes known that a construction crew will be required, Mr. GREEN shall have Mr. DEHART or alternate assemble a working force, including welders. This force shall remain at the Hickman Gas Dept. until given further orders by Mr. GREEN. Repair pipe and materials are located at the Gas Dept. Warehouse on 7Th Street.

MAIN VALVE LOCATIONS ON THE CITY SYSTEM

REFER TO SYSTEM MAP ENCLOSED.

EMERGENCY PROCEDURES

RESPONDING TO GAS LEAK REPORTS

I. Policy: The employee receiving a report of a gas leak will normally ask the person reporting the leak the necessary questions to properly fill out Gas Dept. Leak Investigation Form.

It is important that as much information as possible be obtained in order that the person receiving the call may properly evaluate the urgency of the call.

II. Action Required:

After the necessary questions have been asked and it has been determined that a hazardous gas leak exists, the customer shoudl be advised to:

1. Not operate any electric switches.
2. Extinguish all open flames. Not use matches, cigarettes or other possible sources of ignition.
3. Open doors and windows to ventilate the building.
4. Turn off gas meter if feasible.
5. Evacuate the structure to a safe distance.

Note: If the leas is outside the building and it is apparent that an explosion is imminent, Steps 3 and 4 above may be omitted.

Necessary personnel will be dispatched to the location of the reported leak to make an evaluation.

III. Responsibility: It is the responsibility of the Hickman Gas Supt. to make sure the proper employees are familiar with the procedure concerning gas leak calls.

IV. Records: A complete record of Leak Investigation Reports will be kept at the Hickman Gas Department along with other records concerning the leak.

EMERGENCY PROCEDURES

FIRES - EXPLOSIONS - ASPHYXIATION

Action Required:

The Dispatcher will immediately dispatch Gas Dept. Employee the scene. A supervisor in the general area should also be notified. In addition, the Gas Supt. must be notified on all major emergencies. After normal working hours and weekends the construction and service superintendent will be notified by telephone or radio. All supervisory personnel with radios are required to monitor channel ____/____ when in their cars.

Fire Calls:

1. Immediately upon arrival, let the fire chief or captain know you are there.
2. Turn off gas supply at meter or curb valve if necessary. It may be necessary to call the dispatcher for valve location.
3. Before operating any valve that affects a section of the system, a study should be made to determine the effect upon the entire system. Improper operation of a valve may create a hazardous condition or cause a hazardous condition to become worse. Only properly authorized personnel must operate valves. Fire police, or other officials, or other outside individuals are not authorized to operate valves or to instruct others, including gas company personnel, to operate valves.

4. Do not try to determine the cause of the fire. If you or the fire department believe gas was involved, call for supervisory assistance immediately. Make no statement to the news media.

Explosions:

The Hickman Gas Dept. representative arriving on the scene, must follow procedures outlined on pages __ through __ in the Emergency Manual.

Asphyxiation:

1. Remove victims out of the area.
2. See that victims receive medical help.
3. Ventilate building. Call for supervisor. Request assistance if needed.
4. Check all appliances and venting systems for carbon monoxide. There will be a sharp pungent odor that can be detected by smell if it is present. Advise medical technician or doctor you suspect carbon monoxide poisoning if it is found.

EMERGENCY PROCEDURES

TELEPHONE REPORTS

I. Policy: Gas leaks and test failures that are not intended by the Hickman Gas Dept. and that required immediate repair, must re reported to the Office of Pipeline Safety (1-800-424-8802)* or Public Service Commission by an Office of the Company or his designated representative, provided that the leaks or test failures meet one of the requirements established under II, Action Required, below.

II. Action Required: Telephonic notice shall be made at the earliest practical moment any leak that:

1. Caused a death or a personal injury requiring hospitalization.
2. Required the taking of any segment of transmission pipeline out of service unless part of planned or routine operation.
3. Resulted in gas igniting unless part of planned or routine operation.
4. Caused total damage in excess of $5,000 OPS,1,000 PSC (total of operators damage + damage to others).
5. Could have resulted in or was a significant incident to the operation.

* As of 10/27/82

6. Is significant in the Hickman Gas Department's judgement even though it does not meet the criteria of the above requirements.

Test Failures: A break or rupture that occurs during strength - proof testing of transmission lines that is of such magnitude as to require repair before continuation of the test.

Note: A transmission line is any line operating over 20% of S.M.Y.S. and generally speaking will be Trunkline Pipeline Co.

III. Reports: The report shall contain:

1. The location and time of the incident.
2. Fatalities and personal injuries.
3. All other significant known facts that are relevant to the cause of the leak or extent of the damages.

IV. Records: A complete record of the report, including drawings, etc. shall be kept at Hickman Gas Department.

1. A record of all work done on gas company mains and services will be kept at Hickman Gas Department.
2. A record of all work done on customers' lines will be kept at Hickman Gas Department

EMERGENCY PROCEDURES

GAS LEAK: OUTSIDE

I. Policy: The first gas department employee to arrive at the scene of a gas leak shall take every corrective action (within his capabilities) necessary to protect the public and public property from possible danger.

II. Action Required:

1. Assess danger to public, surrounding building occupants, and property.
2. If necessary, evacuate and/or assist all persons to safety.
3. If necessary, notify Fire Department, ambulances, and law enforcement. (Dispatchers may do this).
4. Notify supervision and/or other responsible persons. (Dispatchers may do this.)
5. If necessary, blockade the area. (Police help may be necessary).

III. Responsibility: It will be the responsibility of the Hickman Gas Department Supervisior or his designated alternates to:

1. Set up a Communications Center. (This will normally be the Gas Department since the pressure information, and records of all mains, valves, services, and regulators are there)
2. Coordinate the operation.

3. Make all decisions concerning emergency valves, isolating areas and the use of emergency equipment.

4. Implement the CHECK LIST.

The above describes a catastrophic condition, an extremely dangerous condition, or a condition requiring major pressure changes and the re-routing of gas. Small routine leaks (example - a broken service not considered dangerous), will normally be handled in the field.

It will be the responsibility of the person in charge, the supervisor, and/or the persons involved with the operation and repair to give careful consideration to any action taken to assure the action taken does not result in endangering the public or public property, creating another emergency, or the unnecessary disruption of service.

In the event the Gas Superintendent is unavailable, the designated alternate familiar with emergency procedures shall be named to coordinate the operation. (Alternates for Mr. DEHAAT shall be MR. TOTTY, MR JONES, and MR. RAY in order named.)

IV. Reports: The report shall contain:

1. The location and time of the incident.

2. Fatalities and personal injuries.

3. All other significant known facts that are relevant to the cause of the leak or extent of the damages.

V. Records: A complete record of the report, including drawings, etc., shall be kept at Hickman Gas Department.

1. A record of all work done on gas company mains and services will be kept in the Hickman Gas Department.
2. A record of all work done on customers' lines will be kept in the Hickman Gas Department.

E M E R G E N C Y P R O C E D U R E S

C H E C K L I S T

_____ 1. Have persons been evacuated and area blockaded?

_____ 2. Have ambulances been called?

_____ 3. Has Fire Department been notified?

_____ 4. Has Law Enforcement been notified?

_____ 5. Has a Communications Center been established?

_____ 6. Has a repair crew been notified?

_____ 7. Has Department Call List been executed?

_____ 8. Are personnel aware of the location of the Communication Center?

_____ 9. Has outside help been requested?

_____10. Has radia and T.V. been given instruction?

_____11. Has Civil Defense been notified?

_____12. Have emergency valves or proper valves to shut down gas to area been located and identified?

_____13. Has leak been stopped, brought under control, or gas shut off to the area?

_____14. Has a telephone report been made?

_____15. Has surrounding area been probed for the possibility of further leakage?

_____16. Is the situation under control and has the possibility of reoccurance been eliminated?

_____17. If an area has been cut off from a supply of gas, has the individual service of each customer been cut off, either at the meter or outside valves?

EMERGENCY PROCEDURES

PROCEDURE TO FOLLOW WHEN ANSWERING ALL GAS LEAK COMPLAINTS

1. Immediately after entering house sample air in rooms, basement or crawl space, with a gas indicator. If indicator indicates presence of a dangerous concentration of gas in the house - 40% on L.E.L. (Lower Explosive Limit) or 2% on percentage (%) scale (See 9 - 10 and 11 in "Notes" below).
   Evacuate the people from the house immediately.
2. Do not operate any light switches.
3. Shut off gas meter valve.
4. Open doors and windows.
5. Probe outside house with rod and gas indicator for gas in ground outside building. Check water meter and available openings.
6. If ground is gas free outside house and after house is properly aired out, turn on meter valve and check all gas house piping and appliances for gas leaks, (use meter test hand and soap water - be sure meter test hand is operative). Check walls and available openings with gas indicator.
7. Repair leaks - check thoroughly or notify customer to correct the situation, lock meter and leave off.
8. Return occupants to house, but only after you are positively sure it is safe to do so.

N O T E S

1. If gas is found in ground outside building, call your supervisor immediately after permorming steps 1,2,3,4 and 5 above. Open water meter boxes and available openings to allow gas to escape to atmosphere. Care must be taken to make these openings safe for traffic and to avoid ignition.
2. If ever in doubt call your supervisor.
3. If gas is found in ground outside building, be sure to check neighboring buildings even if they have no gas service. If there is a possibility of gas from a leak entering premises that are closed, notify the Police to request a forcible entrance to the premises.
4. Occupants may be evacuated to neighbors house, but only after determining the neighbors' house is gas free. For longer periods of time, the occupants may be sent to a hotel or motel if desires.
5. Do not rely on your sense of smell to determine if gas is present in a building or in the ground. Use instruments provided you for this use.
6. Electric meters may be removed to shut down all lights and electric appliances in the house. This should be considered if the electric meter is on the outside of the house. Do Not Attempt This If The Electric Meter Is Inside The House Or In An Area Of Gas Concentration. HOuses or Commercial Buildings where NO GAS is present at the master fuse panel, the switch or switches may be turned off, HOWEVER, it is IMPERATIVE that the combustible gas indicator shown that NO GAS is present IN the panel or the area of the panel.

. If it is determined it is unsafe to enter the basement of the house, knock out the basement windows from the outside to air out basement.

3. After all gas has cleared and it has been determined that it is safe to reset the electric meter, call the electric company to reset the electric meter.

9. When checking within a house or building CONSIDER 40% ON THE L.E.L (lower explosive limits) SCALE OR 2% ON EITHER THE 5% OR 100% SCALES OF A DAVIS (SCOTT) VAPORTESTOR TO BE DANGEROUS. THIS READING TAKEN IN FREE AIR.

0. Be sure your gas indicating instrument is set on the proper scale and that all connections on the sampling tube are tight.

1. When sampling air in a building have your instrument set on the L.E.L. SCALE. Remember that natural gas is lighter than air.

2. When sampling in probe holes in ground have your instrument set on 0-100% scale, if a very low reading is obtained (2% or less) then the instrument may be set to the L.E.L. scale. (This applies only to multi-scale instruments.)

EMERGENCY PROCEDURES

RESTORATION OF SERVICE DUE TO OUTAGES

I. Policy: When the supply of gas has been cut off to an area, no gas will be turned on to the affected area until the individual service to each customer has been turned off.

II. Action Required:

A house to house operation is mandatory. The individual service of each customer must be turned off, either at the meter or at service valves. If entrance to the house cannot be accomplished and if a service valve cannot be located, then, the service line must be uncovered and a service valve installed and cut off. In restoring service to an affected area ALL GAS PIPING AND METERS MUST BE PURGED AND APPLIANCES RELIGHTED. In the event a customer is not at home a * C.G.I. card is to be left in a conspicuous location requesting the customer to call the gas company to arrange for restoration of service.

III. Responsibility:

The Gas Superintendent, his designated alternated, or the person in charge of the operation will coordinate this part of the work as required by the scope of the operation.

* C.G.I.: CAN'T GET IN

IV. Records:

A complete record of the incident, including drawings, etc. shall be kept at the Hickman Gas Department.

1. A record of all work on gas company mains and services will be kept in the Hickman Gas Department.
2. A record of all work on customer lines, turn offs, lighting of appliances, etc., will be kept in the Hickman Gas Department.

EMERGENCY PROCEDURES

EMERGENCY EQUIPMENT

I. Policy: Emergency equipment, special fittings, valve keys, tapping and stopping equipment will normally be kept in designated areas. 2 valve keys and 2 curb cock keys will be kept. Each Gas Department truck shall carry a valve key and curb cock key at all times. Service cars will carry a curb cock key at all times. Maps, main, service and valve records shall be kept in the Gas Department. Emergency equipment shall not be removed from the specified area unless it's exact location is known.

II. Responsibility: It shall be the responsibility of the Hickman Gas Supervisor or his Assistant, to make sure the emergency equipment is adequate and in working order. He is also to make sure maping, main, service and valve records are adequate, updated regularly, properly labeled, and kept in their proper places. The Supervisor and employees shall be responsible for their mobile equipment being properly outfitted.

III. Inspection: Inspections of emergency equipment will be made by the Supervisor in charge of respective equipment to assure that it is in operating condition. Specific tools, such as valve wrenches, etc., special fittings, clamps, etc., shall be identified as to size and use. Additions to an upgrading of emergency equipment shall be done when necessary. Inspections shall be made quarterly.

IV. Records: Records shall be kept of all inspections of emergency equipment.

EMERGENCY PROCEDURES

EMPLOYEE TRAINING

I. Policy: Once a year the Hickman Gas Superintendent shall schecule employee training meetings, to discuss and train employees in emergency procuedures.

II. Action Required:

The employee training and discussions shall include the following:

1. Review of Emergency Manual procedures.
2. Review the location and use of emergency equipment.
3. Review the locations and use of the following: system maps, main records, service records, and valve records.
4. Take a hypothetical emergency situation and, step by step, review the action to be taken.

III. Responsibility:

The Gas Superintendent shall be responsible for scheduling and training of all employees in his department or area.

IV. Records and Reports:

A record oof attendance and items discussed at each meeting shall be kept.

EMERGENCY PROCEDURES

PUBLIC EDUCATION

I. Policy: There shall be a continuing education program to enable customers, the public, appropriate governmental organizations, and persons engaged in excavation related activities to recognize a gas emergency for the purpose of reporting it to the Gas Department.

II. Action Required:

Information data required shall be, but not be limited to:

1. Information about gas
2. Recognition of gas odors
3. What to do and wat not to do when there is a strong odor of gas.
4. Notification of the Gas Department prior to making excavations or excavation related activities.
5. Gas Department phone numbers to call for information or to report an emergency

This information shall be conveyed to the public by:

1. Radio or television
2. Newspapers
3. Meetings
4. Bill stuffers
5. Mailing of information to the general public.
6. Hand - outs

III. Responsibility:

The Gas Department Superintendent will implement and coordinate this program.

IV. Records:

A record shall be maintained of the public education program and related activities. This record will be maintained by the Gas Department Superintendent.

EMERGENCY PROCEDURES

LIAISON WITH PUBLIC OFFICIALS

I. Policy: Liaison shall be established with fire, police, and civil defence officials with respect to emergency procedures.

II. Action Required:

Meetings shall be held with the appropriate officials to acquaint them with the Department's capabilities and procedure respecting gas emergencies and to learn the capability and responsibility of each government organization that may respond to an emergency.

Training sessions, as required, may be scheduled with fire, police, and civil defense organizations to train them in the proper procedures to follow during a gas emergency.

III. Responsibility:

The Gas Superintendent will implement and corodinate this program.

IV. Records:

A record shall be maintain of all meetings, training sessions, and other related activities. This record will be maintained by the Gas Superintendent.

NOTICE: In case of an emergency, if you have requests for information from TV Stations, Radio Stations, Newspaper Reporters, etc., refer them to Mr. Joe Rumfelt or in his absence the Gas Department Supervisor. Explain that you do not have the authority to provide information.

In case of emergency which interferes with normal operation of gas service, the following suggested plan of public announcement may be followed:

1. Allay any unfounded fears.
2. Do not make any reckless comments.
3. Tell precisely what the public can do to help.
4. Tell specifically what the Gas Department is doing about it.
5. Give the facts to prevent baseless rumors.
6. Repeat most encouraging view of situation that facts will permit.
7. Do not speculate regarding the situation in absence of facts.

For example:

(1) The break in the gas pipeline on _____ and which serves a good part of _____ is not being repaired by special service crews from _____ and should be back in service in a few hours, if no unforseen conditions arise.

(2) The break will withhold gas service to the section of _____ that is in the area between _____ _____ and the _____.

(3) Residents in the area listed above are requested to turn off all gas appliances immediately and to wait until notified before turning them on. Let us repeat this: Residents in the _____ area who are affected by the pipeline break must shut off all gas appliances and keep them off until notified by the Gas Department.

(4) A temporary emergency patch is not being placed over the break by Gas Department servicemen so that normal service can be resumed as soon as possible. A permanent repair can be later made without interference of service.

(5) The break was discovered this morning by passers-by who noticed the strong smell of gas. Mr. J.T. Jones, an employee of the XYZ Company, notified the Gas Department at approximately 7:30 this morning, and the Gas epartment service crews were immediately dispatched to the scene.

(6) Service is expected to be resumed in a few hours. Keep listening to your radio for further announcement.

(7) This statement, to which you have just listened, was issued within the past hour by officials of The Hickman Gas Department on the scene of the pipeline break.

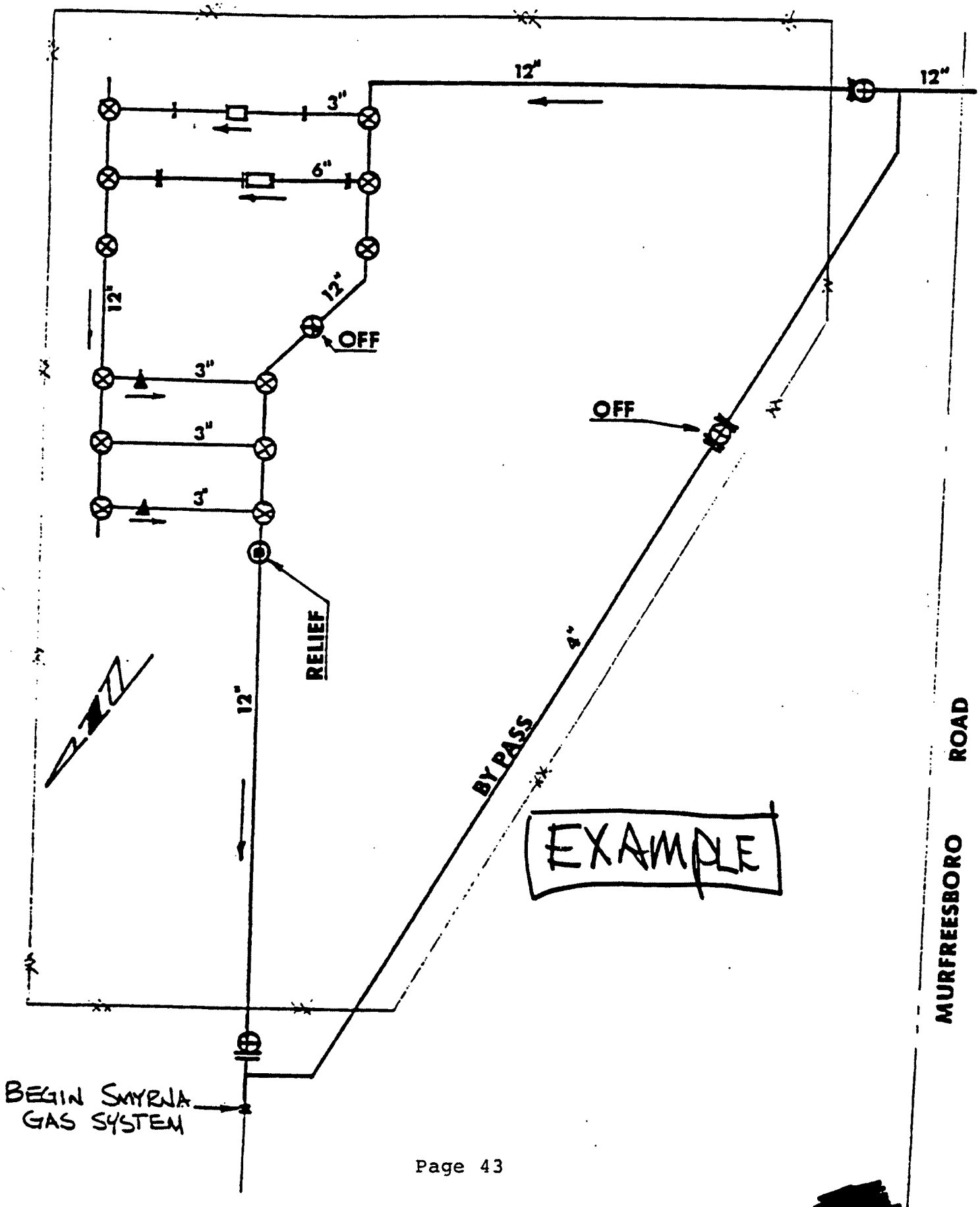
:e: Paragraphs to be set up in order of importance at time of emergency.

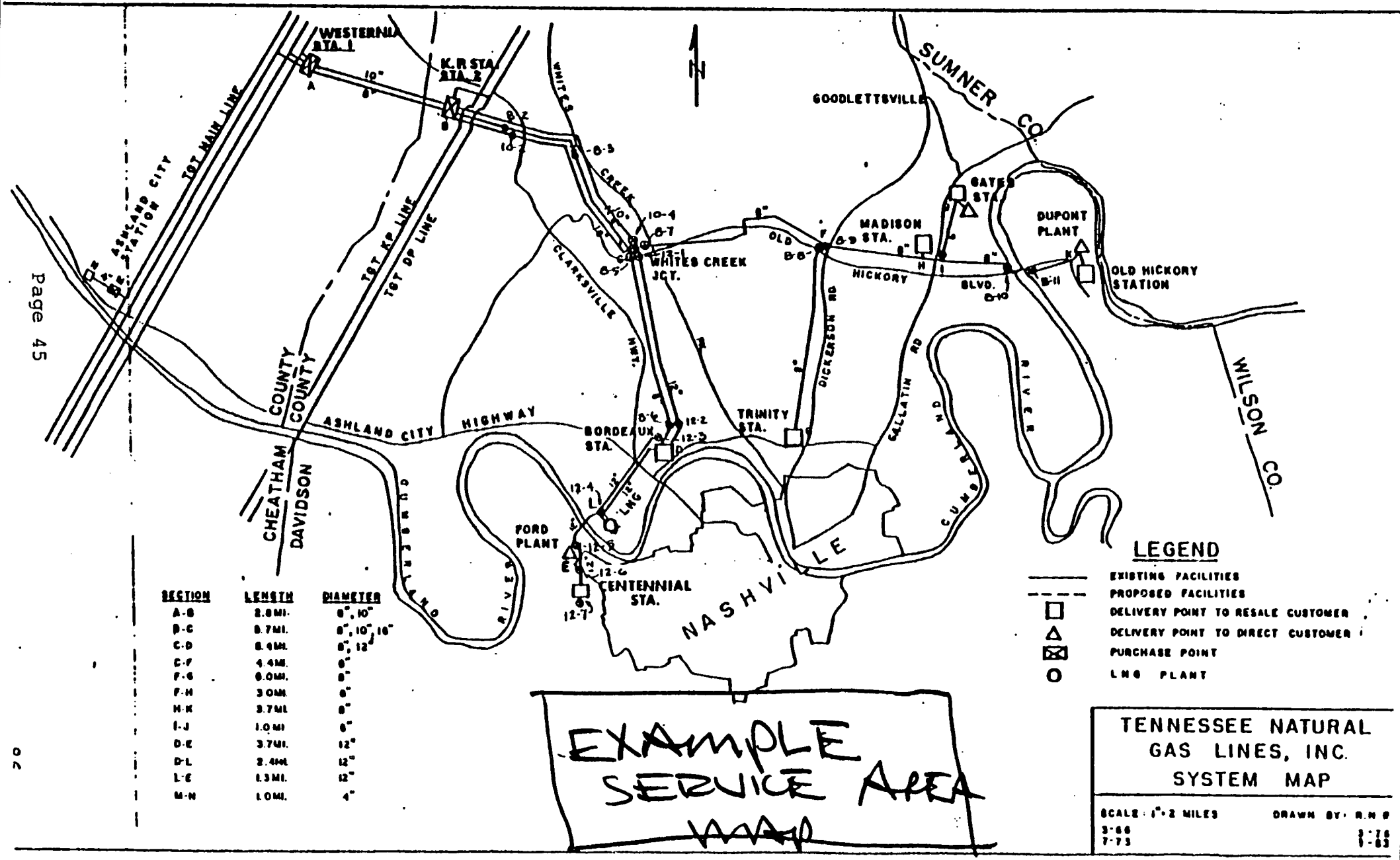
SCHEMATICS OF MAJOR (IMPORTANT) INSTALLATIONS

SEE EXAMPLE DRAWING

1. Trunkline Meter Station
2. City Regulator Station
3. SIGRI Metering Station

SMYRNA METER STATION





SECTION	LENGTH	DIAMETER
A-B	2.8MI.	8", 10"
B-C	8.7MI.	8", 10", 16"
C-D	8.4MI.	8", 12"
C-F	4.4MI.	8"
F-G	8.0MI.	8"
F-H	3.0MI.	8"
H-K	3.7MI.	8"
I-J	1.0MI	8"
D-E	3.7MI.	12"
D-L	2.4MI.	12"
L-E	1.3MI.	12"
M-N	1.0MI.	4"

LEGEND

- EXISTING FACILITIES
- PROPOSED FACILITIES
- DELIVERY POINT TO RESALE CUSTOMER
- DELIVERY POINT TO DIRECT CUSTOMER
- PURCHASE POINT
- LNG PLANT

TENNESSEE NATURAL GAS LINES, INC.
SYSTEM MAP

SCALE: 1" = 2 MILES DRAWN BY: R.N.B

3-66 3-76
7-73 1-83

INTERRUPTIBLE CUSTOMERS CALL LIST

COMPANY & ADDRESS	ALTERNATE FUEL	MAX. HR	MAX. DAY	CONTACT PERSON	BUSINESS PHONE	HOME PHONE
XYZ Corp. Act #12345678	Oil Coal KOG	20MCF/Hr	150MCF/Day	Ben Jones	--------	--------

City of Hickman Gas Dept.

Operations and Maintenance Manual

Updated on 2-1-96

Prepared by:

John Amberg
City of Hickman
Public Works Director

TO ALL EMPLOYEES OF THE CITY OF HICKMAN

Introduction

This Manual sets out the operations and maintenance plan and policies of this company. Each employee must read this manual initially, and then maintain the manual for ready references at all times as he or she perform their job assignment. Although some sections of this manual will be most applicable to certain operations personal, all employees are charged with the responsibility of guarding against improper maintenance or operational procedures. Thus, each employee must familiarize himself with the contents of this manual, and then contact the proper supervisory personnel if conditions arise which seem to be out of compliance with the policies and procedures as set out herein.

1. Instructions as to procedures which must be followed during normal operations and while making repairs to the system.

Monitoring lines
Checking for potential hazards
Assurance of valve and marker locations

2. Instructions as to procedures which must be followed during emergency situations.

A. As soon as an employee becomes aware of an emergency situation, he must contact immediately:

1. The Public Works Superintendent
   (telephone, cellphone, radio, ect.)
2. The Public Works Foreman
3. The City Manager
4. The Mayor

Details to be transmitted to the above people are as follows:

1. Exact location of the emergency situation;
2. Nature of the emergency;
3. Whether public safety may be jeopardized by the situation;

B. If the situation does not jeopardize persons or property, the Superintendent or Foreman will make a determination as to the extent of the emergency presented by the situation, and will direct employees as to proper procedures in each situation.

If the situation does pose an immediate risk to persons or property, the employee who is aware of the problem should refer to the Emergency Plan included in this manual.

3. Line Markers:

A. It is the intent of this company to maintain line markers at all following locations;

Buried Transmission Lines

A line marker must be placed and maintained as close as practical over each buried main at each crossing of a highway, railroad or ditch on rural lines. A line marker must also be placed wherever necessary to identify the location of the main to reduce the possibility of damage or interference in the city limits.

B. Those markers must as a minimum be written legibly on a background of sharply contrasting color on each line marker and state the following;

1. The word "WARNING","CAUTION" or "DANGER" followed by the words GAS PIPELINE. The letters must be at least one inch high with one-quarter inch stroke.
2. The name of the operating company and the emergency contact phone number (including area code) where a contact can be made at all times. (49 CFR 192.707)

4. Patrolling:

Patrolling of our gas lines must be continuously in the mind of each employee as they perform their daily job assignments. Employees should especially note areas where mains are located in places or on structures where anticipated physical movement or external loading could cause failure or leakage. These areas include: pipe located on bridges, waterways, land slide areas, areas susceptible to earth subsidence or an area of construction activity and above ground pipe. Each employee should make a notation and notify his supervisor upon any changes immediately. Scheduled patrolling will be conducted once every three months. The Superintendent will make the assignments as to scheduled patrolling and a record must be completed and filled out by the person or persons patrolling.

5. Leakage surveys

A. Residential Surveys

A leakage survey will be conducted once each year in residential areas with the town being divided so that any division does not exceed a four year period. The Superintendent will assign this task to the contractor hired by the city and so charged will fill out and file a copy of the leak report for each leak discovered. Employees will survey for possible leaks and report such immediately upon discovery.

B. Transmission Line Survey

A leak survey of our transmission line will be conducted annually for leaks and vegetation in non-populated areas. The persons responsible for this survey will indicate areas surveyed and the date of the survey and any problems found.

C. In General

If a leak is discovered which presents a hazardous situation, the employee should refer to the Emergency Plan for correct steps to take.

6. Continuing Surveillance:

A. The Superintendent will continuously familiarize himself with conditions along the pipeline and take appropriate actions concerning changes in class location, failure, leakage history, corrosion, substantial changes in cathodic protection requirements, and other unusual operating and maintenance conditions.

B. If a segment of pipeline is determined to be in unsatisfactory condition but no immediate hazard exists, the operator shall initiate a program to recondition or phase out the segment of pipe involved, or, if the segment of pipe cannot be reconditioned or phased out, reduce the maximum allowable operating pressure.

7. Testing and Installing Services:

1. New Service;

A. A new service must be air tested at atleast one hundred pounds for a time period not to be less than twenty four hours, to be inspected by the Supervisor or his designated employee.

B. The plumber or homeowner must fill out a registration card furnished by the City of Hickman Gas Company stating work that was preformed, address, date and person installing the plumbing before services are connected.

2. Reinstating Services;

A. The customer must be at the residence or business to be reinstated.

B. The employee will make a visual inspection of the meter set before turning any valves to the on position to assure the lines are installed properly.

C. After the service is turned on the employee will look at the sweep hands on the meter and check to see if the hands are turning which would indicate a possible leak.

D. After the employee is assured that the hands are not turning, he will notify the customer that there appears to be no leaks and that the person should contact a plumber for assistance in lighting their pilot lights if they are unable to do so themselves.

Our insurance policy does not permit us to work on or install any plumbing to any type of structures as does the Ky. State Plumbing Code book.

8. Abandonment of Facilities:

A. When a gas service line is abandoned, it must be physically disconnected from the piping system and the open ends effectively sealed. Pipe 4" and larger must be purged.

B. Records must be kept on all facilities abandoned, including the following;

1. location
2. date
3. method of discontinuing service

C. When services are temporarily or permanently discontinued to a customer, the valve must be closed, locked or blanked to prevent the unauthorized use of gas by unauthorized persons.

9. Accidental Ignition of Gas:

Each employee must be constantly aware of the danger of gas explosion. Gas alone is not explosive, but when mixed with air, it can ignite or explode with tremendous force. Every precaution must be taken to prevent unintentional ignition of gas. **When venting gas into the air , a fire extinguisher must be available at all times.**

10. Key Valve Maintenance:

Key valves will be checked annually, and record of the inspection will be maintained by the Superintendent Key valves are the valves needed to shut down the system, in case of a emergency.

11. Measuring the Odorization of Gas

Gas odor must be detected at one-fifth the lower explosive limit. That limit is approximately four percent natural gas in the air by volume. Therefore, employees must verify that gas can be detected at approximately one (1%) percent gas in air.

1. Sniff test will be conducted weekly and a weekly report kept. Since the gas in this area has a natural "rotten-egg" odor, continuous sniff test will be conducted by all employees as they service the distribution system.

12. Cathodic Protection:

A corrosion control expert will test the transmission line annually for corrosion control levels. Corrosion control is by placement of anodes at several intervals along the line. The Superintendent will work along with the consultant and complete and retain records of all test, surveys, and inspections showing type of test.

A. Pipelines installed after July 1, 1971. Each aboveground pipeline or portion of pipeline installed after July 1, 1971 that is exposed to the atmosphere must be cleaned and either coated or jacketed with a material suitable for the prevention of atmospheric corrosion.

B. Pipelines installed before August 1, 1971. Each operator having an aboveground pipeline or portion of pipeline installed before August 1, 1971 that is exposed to the atmosphere, shall ;

(a) Determine the areas of atmospheric corrosion on the pipeline;

(b) If corrosion is found, take remedial measures to the extent required;

(c) Clean and either coat the areas of corrosion on the pipeline with a material suitable for the prevention of atmospheric corrosion.

(d) All meters must be electronically insulated when anodes and rectifiers are used in the prevention of corrosion control.

13. Leak Repairs;

Only maintenance personnel who have been trained, experienced, certified and are enlisted on the drug testing list, will attempt to make repairs or install gas lines. If such personnel are not available, then outside personnel will be hired for said job.

Leaks in service lines or mains may be repaired by cutting out short lengths of pipe containing the leak. Replace it with a new piece of pipe. The pipe segment is attached to the existing pipe with dresser couplings, or by welding, at each end. Compression coupling are commonly used for this purpose.

Small leaks in steel service lines and mains may be repaired by placing a steel band clamp applied directly over the leak. All bare metal pipe and fittings installed below ground must the be properly coated and cathodically protected before backfilling.

If several leaks have been found and extensive corrosion has taken place, the most effective solution may may be to replace the entire length of pipe that has deteriorated For these more extensive types of repairs, the normal installation procedures must be followed.

One source of failure in plastic pipe is mechanical breaks associated with compression fittings at the transition of plastic pipe to metal pipe. Such failures are caused by a combination of factors. The primary source of the problem is inadequate support of the plastic pipe. The safety requirements in 49 CFR 192.319, 192.321, and 192.361, prescribe firm compaction of soil underneath the pipe to produce proper support.

The most common cause of leaks in plastic pipe is related to "third-party" damage. This is usually caused by a contractor breaking or cutting the pipe while digging. Plastic pipe is more vulnerable to such breaks than steel pipe. The lower strength level of the plastic pipe, however, is not necessarily a disadvantage. For example, if digging equipment hits and pulls a steel pipe it may not break. However, the steel pipe may be pulled lose from a connection further away and may not be detected for a period of time and may result in a serious incident. Although there is no assurance that the plastic pipe won't pull out, it is more likely to break at the point of digging.

After a leak has been repaired with a coupling or a clamp, a soap and bubble or a sniff test must be conducted to check for leaks. Replaced mains and service lines must be air tested for leaks.

Again it should be emphasized that all sources of ignition should be kept away from the leak repair area **Matches should never be used to detect a leak** or to test the adequacy of a repair job. While repairing leaks, a fire extinguisher must be available at all times.

14. Emergency Plan;

The City of Hickman Gas Dept. Emergency Plan is designated as such and set out in detail at the back of this manual.

15. Inspection of Regulator Stations;

(a) Inspection will be as directed by the Superintendent and preformed annually to determine that regulators are as follows:

1. Mechanically in good condition.
2. Adequate from the standpoint of capacity and reliability of operation
3. Set to function at the correct pressure.
4. Properly installed and protected from vehicle traffic, dirt, liquids, icing, or other conditions that might prevent proper operation.

The attached form shall be used to record the inspections.

(b) If problems such as:

1. Distribution system pressure appears low:
2. Operating and maintenance history of station is not satisfactory;
3. Gas is supposedly dirty;
4. Back-up safety devices are not operational;

then regulator disassembly or station redesign may be necessary. Outside consultants will be hired for regulator repair or replacement.

16. Testing of Relief Devices at Regulator Stations;

An outside consultant will analyze the gas system on an annual basis to determine that the relief valve capacity is adequate for the system's maximum allowable operating pressure. If there has been no system change, the calculation of capacity need only be reviewed and initialed on an annual basis. If there have been changes made, the new relief valve capacity calculations must made and kept on file.

The capacity calculation report attached should be maintained in conjunction with the annual inspection report.

17. Odorizing of Gas

The gas in it's natural state has a "rotten-egg" odor. If a odorant must be installed in addition to this , we will contact a manufacturer or distributor of the odorant to install the necessary devices for injection into the line. Therefore, the following basic rules will apply.

(a) Assure that all gas in the distribution mains and lines is odorized,

(b) Specify or determine the type of odorant used in the system,

(c) Specify the manufacture's recommended amount of odorant needed to be injected per MMCF of gas.

(d) Include any maintenance procedures recommended by the manufacturer of the type of odorant installed in the system,

(e) Include period testing of your odorant injection rate, and testing at various locations, including the outer extremities of pipeline system.

(f) Maintaining records of injection rate and odor sampling **Forms are attached.**

CITY OF HICKMAN

GAS DEPARTMENT

EMERGENCY OPERATING PLAN

updated 2-1-96

INTRODUCTION

This plan has been prepared to provide data essential in an emergency situation. The pipeline safety requirements for emergency plans are contained in 49 CFR 192.615.

No emergency plan can cover all situations. There is no substitution for the sound judgment of the situation by the operator or persons involved. In any emergency, the safety of the public must always be given first priority.

What is an emergency condition?
An emergency condition exist when the operator or a representative determine that extraordinary procedures, equipment, manpower, and / or supplies must be used to protect the public from existing or potential hazards.
These hazards may include, but are not limited to facility failures in :
a. Underpressure in the system.
b. Overpressure in the system.
c. Large amounts of escaping gas.
d. Fire or explosion near or directly involving a pipeline facility.
e. Any leak considered hazardous.
f. Danger to major segment (s) of the system.
The hazards also include :
a. Natural disasters (floods, tornadoes, earthquakes, ect.)
b. Load reductions
c. Automobile accidents involving gas pipelines or service lines.

CONTENTS OF THIS EMERGENCY PLAN

1. Emergency notification list

2. Map of key valve locations

3. Emergency equipment

4. Responding to gas leak reports

5. Check list for major emergency

6. Reporting requirements (Telephone Reporting)

7. Restoration of gas service due to outage

8. Education and training

9. Accident investigation

Emergency Notification List

City of Hickman Gas Department
1812 South Seventh St.
Hickman Kentucky
42050

Operating personnel :

John Amberg	236-2009	Director
Charles Totty	236-3255	Foreman
Larry Jones	236-2315	Equipment Operator
Rick White	838-9320	Service Worker
Jackie Duncan	U/L	Service Worker

Others to notify :

Hickman Police Dept.	236-2529 or 911
Fulton Co Sheriff Dept	236-2545 or 911
Bobby Childers	236-3191
John Shuff	236-2955

Map of Key Valve Locations

See map on following page;
Only authorized personnel are allowed to operate valves.
Police, Fire, other officials, or outside individuals ARE NOT AUTHORIZED to operate or TO INSTRUCT OTHERS to operate, including gas company personnel, to operate valves.

Emergency Equipment

The operator, or his designate, is responsible for the adequacy, availability and condition of emergency equipment.

Most tools to be used in a emergency situation are located on the 1996 Ford truck. Maps and records, leak detection equipment ect., are located in the Public Works building

Periodic checks of emergency equipment should be taken and records of these inspections kept on file.

Responding to Gas Leak Reports

It is the responsibility of the gas system operator to make sure the proper employees are familiar with procedures concerning gas leak calls and reports.

1. The employee receiving the report of gas leak should get as much information as possible to fill out the leak report properly.
2. All leaks on customer property get first priority attention.
3. After determining that a hazardous leak exists inside a building, remind the customer of all the following information;

a. Do not operate light switch or appliances.
b. Do not operate telephone or use door bell.
c. Extinguish all open flames.
d. Open all windows and doors for ventilation.
e. If possible, turn gas off at meter stop.
f. Leave building to a safe distance and don't let any one in building.

4. Dispatch necessary personnel to location of leak.
5. Duties of first company employee on the scene:

a. set up communications
b. coordinate the operation
c. make all decisions concerning emergency valves, isolating areas, and the use of emergency equipment
d. Implement the check list for a major emergency (covered in this plan)

Check List for Major Emergency

1._____ Has fire and police departments been notified?

2._____ Have persons been evacuated and area blocked off?

3._____ Has repair crew been notified?

4._____ Has company call list been executed?

5._____ Has communications been set up?

6._____ Has outside help been requested?

7._____ Have ambulances been called?

8._____ Has leak been shut off or brought under control?

9._____ Have emergency valves been shut off to reroute gas?

10._____ If gas to a area has been cut off, has each customers meter been turned off?

11._____ Has the possibility of reoccurrence been eliminated?

12._____ Has the surrounding area been checked for leaks?

13._____ Has proper tag been put on meter?

14._____ Has telephonic report been maid to state?

15._____ Has telephonic report to DOT been maid?

16._____ Have radio stations been notified(if necessary)?

Reporting Requirements

A telephone call must be made to the U.S. Department of Transportation and the Public Service Commission for any leak where;

1. There is a release of natural gas from a pipeline.
2. There is death or personal injury requiring hospitalization or there is estimated property damage of $50,000 or more.
3. There is an event that is significant in the judgment of the operator, even though it was not covered in above paragraphs.

The telephone report to DOT and PSC should contain the following:

1. Identify the reporting operator
2. Name and telephone number of person reporting the incident
3. The location of the leak
4. The time the leak was reported
5. The number of fatalities and personal injuries, if any
6. Type and extent of property damage, and
7. Description of the incident

An incident requiring a telephone report must be followed up with a written report unless the report is made by a small operator such as a master meter operator, a condominium or cooperative owner or an owner of rental property such as an apartment building. The telephonic report should be made at the earliest moment following discovery. (within 2 hours)

U.S. Department of Transportation, National Response Center will receive call	1-800-424-8802 1-202-267-2675 Washington D.C.
Kentucky Public Service Commission	1-502-564-3940 Frankfort

Restoration Of Gas Services Due To Outage

When the supply of gas has been cut off to an area, no gas should be turned on to the area until the individual houses in said area have been turned off.

A house to house operation is mandatory. The individual services of each customer must be turned off, either at the meter or at service valves.

In restoring services to an affected area all gas piping and meters must be purged and appliances relighted. Never turn on gas at the meter unless you have access to all appliances on the customer piping. In the event a customer is not at home a card must be left in a conspicuous place requesting the customer to call the gas company to arrange for restoration of services.

The person in charge is to coordinate this operation and be responsible for same.

A complete record of the incident, with drawings and pictures, must be kept on file.

Education and Training

Periodically employees must be trained in emergency procedures including but not limited to;

1. Update of Emergency Plans
2. Review of employee responsibilities in an emergency
3. Review of location and use of emergency equipment
4. Review the locations and use of :
   System maps, main records, service records, valve records, regulator station operations
5. A hypothetical emergency situation and step by step review with employees and the actions to be taken.
6. Record keeping
7. Telephone reports
8. Records shall be kept on file of attendance and items discussed
9. Liaison with appropriate fire, police, and other public officials

Public education is required and may be done, but is not limited to, by

1. Information about gas properties
2. Recognition of gas odors
3. What to do and what not to do if you smell gas
4. Notification of the gas company prior to excavating
5. Telephone numbers for customers to call to report leaks or other information both during

work and nonworking hours(24 hours a day)

This information may be conveyed to the public by a number of means;

1. Radio and television
2. Newspaper
3. Meetings with company officials
4. Bill stuffers
5. Mailing of information
6. Hand-outs
7. Posted on bulletin boards

Accident Investigation

Each operator must establish procedures for analyzing accidents and failures, and at the least :

1. Evaluate the situation
2. Protect life and property
3. Keep area safe
4. Conduct a leak survey
5. Conduct pressure tests of piping
6. Do meter and regulator checks
7. Question person on the scene
8. Examine burn and debris patterns
9. Test odorization levels
10. Record meter reading
11. Record weather conditions
12. Determine the cause of the incident
13. Notify the proper insurance company