Prevention and Mitigation Advocacy for Small Department Responders

PMSD-Student Manual

1st Edition, 2nd Printing-November 2001

Homeland Security

DHS/USFA/NFA
PMSD-SM
November 2001
1st Edition, 2nd Printing

Prevention and Mitigation Advocacy for Small Department Responders

Homeland Security

Prevention and Mitigation Advocacy for Small Department Responders

PMSD-Student Manual

1st Edition, 2nd Printing-November 2001

Homeland Security

U.S. DEPARTMENT OF HOMELAND SECURITY

PREPAREDNESS DIRECTORATE

UNITED STATES FIRE ADMINISTRATION

NATIONAL FIRE ACADEMY

FOREWORD

The U.S. Fire Administration (USFA), an important component of the Department of Homeland Security (DHS) Preparedness Directorate, serves the leadership of this Nation as the DHS's fire protection and emergency response expert. The USFA is located at the National Emergency Training Center (NETC) in Emmitsburg, Maryland, and includes the National Fire Academy (NFA), National Fire Data Center (NFDC), National Fire Programs (NFP), and the National Preparedness Network (PREPnet). The USFA also provides oversight and management of the Noble Training Center in Anniston, Alabama. The mission of the USFA is to save lives and reduce economic losses due to fire and related emergencies through training, research, data collection and analysis, public education, and coordination with other Federal agencies and fire protection and emergency service personnel.

The USFA's National Fire Academy offers a diverse course delivery system, combining resident courses, off-campus deliveries in cooperation with State training organizations, weekend instruction, and online courses. The USFA maintains a blended learning approach to its course selections and course development. Resident courses are delivered at both the Emmitsburg campus and its Noble facility. Off-campus courses are delivered in cooperation with State and local fire training organizations to ensure this Nation's firefighters are prepared for the hazards they face.

Course Background and Intent

Prevention and Mitigation Advocacy for Small Department Responders (PMSD) is the second in a series of outreach prevention/mitigation courses ideally suited to the needs of America's smallest departments, those in communities serving several hundred to several thousand populations. The first in this series, *Fire Prevention for First Responders and Small Departments* (FPSD), sought to create a "passion for prevention" on the part of operationally oriented fire suppression personnel. It continues to receive rave reviews from participants all across the United States.

In this second course we begin to shift from motivation to insight, from awareness and advocacy to action. During this course, participants identify responsibilities, recognize allies and detractors, and analyze how the political environment influences a community's "acceptable level of risk": those issues of public policy that elected and appointed officials knowingly or unknowingly accept. Attendees more clearly identify the role of the fire service in a community's overall scheme of risk reduction. They develop strategies to locate, secure, and use newly discovered resources to bring about a change in the way small-town America can become proactive about fire and injury prevention. Resources from all levels of government and the private sector already exist. Thanks for attending!

TABLE OF CONTENTS

COURSE SCHEDULE

Module 1: Identifying Community Risks

Module 2: Managing Risk

Module 3: Planning for Change

Module 4: Influence

Course Goal

At the conclusion of this course the students will be able to identify, evaluate, and implement strategies to influence and change behaviors in their departments and communities through programs that reduce hazards and life safety risks.

MODULE 1: IDENTIFYING COMMUNITY RISKS

TERMINAL OBJECTIVES

The students will be able to:

1. *Identify potential risks from fire to lives and property within their communities.*

2. *Identify barriers to effective fire department operations.*

ENABLING OBJECTIVES

The students will:

1. *Analyze a major fire-loss scenario and define factors that contributed to the loss of life and property.*

2. *Discuss potential impacts of loss in smaller communities as compared to larger cities.*

3. *Review sources of historical fire-loss information that may be helpful in recognizing community risks in smaller communities.*

4. *Develop a list of typical risks that may exist in smaller communities.*

5. *Develop a list of potential barriers that may challenge the operations of the fire department.*

6. *Develop a list of potential community risks that may endanger lives and/or property within their individual communities.*

INTRODUCTION

This module strives to give an understanding of fire and life safety risks and to recognize that they may exist in any smaller community. The previous course, *Fire Prevention for First Responders and Small Departments* summarized the history of fire in the United States and emphasized that, of the staggering estimated $9.6 million fire loss, 38 percent occurs in communities with less than 25,000 population. Loss to value at risk is much higher in smaller communities.

The 1991 Hamlet, North Carolina, Chicken Plant Fire will be used as an example incident that occurred in a smaller community and caused the loss of 25 lives, and 54 injuries. This incident is typical of many major losses that occur in small communities, often because of lack of good fire safety practices, the lack of fire code enforcement, and delayed alarms.

This fire happened 10 years ago and, therefore, may seem passé for use as a present-day example of high risk. However, it is not practical to use recent disasters for critical analysis because of strong and continued interest in the event. Financial claims and criminal prosecution may still be under adjudication. The feelings of relatives and friends of those who lost their lives still may be very intense. For this reason, major disasters from the past are used as examples of potential risk. They are not significantly different from recent disaster scenarios.

IMPACT COMPARISONS

In smaller communities, major losses, especially multiple loss of life, do not happen frequently, but when they do they are devastating to the community and to the firefighters. Because they happen so infrequently, fire personnel often become complacent and indifferent to risks--sometimes obvious risks. When major disasters occur, often there were fire code violations--blocked or locked exits, accumulations of combustibles, lack of training, and indifference to the risk of fire.

Major losses in larger cities are more easily "absorbed" into the overall picture. As an example, the loss of a grocery store in a large city may not affect users to a great extent, because they can shop easily at a different grocery store. In a small community, the grocery store may be the only outlet for food, so residents may be required to drive many miles to another store. In the same way, a large community may be less affected by a lost life in a residential fire. However in a small community, the impact may be devastating. Special consideration should be given to occupancies where the community would be "outraged" should a disaster occur.

In a small Oregon community, a large stockpile of logs burned in the summer destroying the winter's work for the community sawmill. The following winter, the community suffered a serious recession, affecting jobs and related businesses when the residents were out of work and had no money to spend.

USE OF DATA

Many high-risk occupancies are overlooked in smaller communities, simply because they have a very low frequency of fire. People may become complacent to these risks because they have become so accustomed to them. Historical information gives little clue to potential risks when incidents occur infrequently.

Incident data collected at the State level may be valuable in identifying potential risk in a smaller community. As an example, a high number of major fires in apartment houses throughout the State may indicate a potential risk to apartment houses in a small community. While identifying high-risk occupancies, apartment houses would surely be considered. Knowing what has happened to other communities of similar size and environment can help to pinpoint risks in your community. National data can help to identify national trends, most probable causes and potential solutions.

Fire departments generally perform better with high-frequency incidents, whether they are high risk or low risk to life and property, because they are usually more experienced, better prepared and trained to meet the challenge. For example, a fire department that responds frequently to automobile accidents on a busy highway usually is well trained and prepared to mitigate this kind of situation, even though it is a high risk for those involved.

On the other hand, in a small community a major fire in an elementary school is very high risk to life but occurs very infrequently. Occupancies in smaller communities that present "high-risk-low-frequency" situations need the greatest attention to prevention and preparation. An elementary school fire with loss of life is simply not acceptable in any community, even if it happens infrequently.

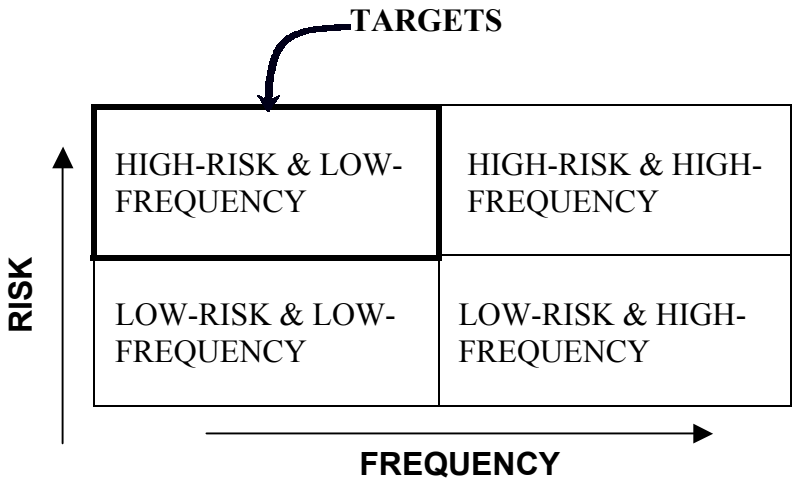


Figure 1-1
Risk Model

Fire departments usually focus on high-frequency incidents and may neglect low-frequency challenges. If the low-frequency occupancies are very high risk to life and/property loss, it can set the stage for a major disaster.

RISK CATEGORIES

Historical information shows that major loss fires fall into specific categories or situations that can be used to identify similar risk in any community.

- **Places where people congregate--**Theaters, drinking establishments, dance halls, schools, grandstands, arenas, factories, gambling halls, gymnasiums, etc.

- **Places where people sleep--**Hotels, motels, apartment houses, dormitories, lodges, etc.

- **Places where people are confined--**Institutions, prisons, reformatories, etc.

- **Place where people are mentally or physically impaired--** Institutions, hospitals, care facilities, nursing homes, homes for the aged, group care, day care centers, etc.

- **Places where hazardous materials are manufactured, processed, handled, or stored--**Acids, chemicals, pesticides, explosives, flammable liquids, radioactive materials, etc.

- **Buildings with large divided areas--**Department stores, grocery stores, warehouses, manufacturing plants, etc.

- **Vacant buildings.**

- **Business about to go bankrupt.**

- **Conflagration risks--**Wildlands, forests, no firewalls, etc.

Activity 1.1

Identifying Risks--
Hamlet, North Carolina,
Chicken Processing Plant Scenario
(Imperial Foods)

Purpose

To analyze the Hamlet Chicken Processing Plant fire to identify factors contributing to the tragedy.

Directions

1. Your instructor will divide the class into small groups. Each small group will

   a. Select a group leader to lead the activities and keep the group on track.

   b. Select a group recorder to record the work of the group on an easel pad for presentation to the full class.

   c. Select a group reporter to make a brief presentation to the full class, using the easel pad notes prepared during the exercise.

2. Take 10 minutes to review the Chicken Processing Plant fire individually.

3. Take 20 minutes to brainstorm a list of factors that contributed to the multiple loss of life as a result of the fire. Group the factors into categories of factors relevant prior to the incident and those relevant during the fire. Record your answers on the easel pad and individually on the forms provided.

4. Be prepared to present your list of strategic factors to the full class when requested by the Instructor.

Reference: USFA Technical Report *Chicken Processing Plant Fires: Hamlet, North Carolina, and North Little Rock, Arkansas*, located in the Appendix to this Student Manual.

Activity 1.1 (cont'd)

Worksheet

Individually record the results of your group's discussions and deliberation in the following two categories:

Contributing Factors Occurring Before the Fire:

Contributing Factors Occurring During the Fire:

Group: _____

Activity 1.2

Fire Department Barriers

Purpose

To discuss fire department response in relationship to the ability to avoid major disasters.

Directions

1. In your small group, brainstorm a list of common barriers to effective fire department response.

2. In a major disaster what impact would these barriers have?

3. In your community would you have the resources to overcome these barriers if a major disaster occurred?

Activity 1.3

Target Risks

Purpose

To develop a list of potential community risks that may endanger lives and/or property within your individual communities.

Directions

1. What community risks exist that may endanger lives and property in your community? Consider the following categories.

   a. Places where people congregate.
   b. Places where people sleep.
   c. Places where people are confined.
   d. Places where people are mentally or physically impaired.
   e. Places where hazardous materials are manufactured, processed, handled, or stored.
   f. Buildings with large undivided spaces.
   g. Vacant buildings.
   h. Businesses about to go bankrupt.
   i. Conflagration risks.

2. Be prepared to share your list and compare it with others in the class. Each small group should have one example of a unique risk to share with the class.

Activity 1.4

Self-Assessment

Purpose

To apply the lessons learned to your own real-world situation.

Directions

1. Identify three or four activities that you could initiate that would promote acceptance of fire prevention in order to prevent the sort of tragedy that occurred in the Hamlet Chicken Plant.

   a. _____

   b. _____

   c. _____

2. In a brief paragraph describe the most important thing that you have learned in this module.

APPENDIX

United States Fire Administration

Technical Report Series

Chicken Processing Plant Fires
Hamlet, North Carolina, and
North Little Rock, Arkansas

Federal Emergency Management Agency

United States Fire Administration

National Fire Data Center

United States Fire Administration Fire Investigations Program

The United States Fire Administration develops reports on selected major fires throughout the country. The fires usually involve multiple deaths or a large loss of property. But the primary criterion for deciding to do a report is whether it will result in significant "lessons learned." In some cases these lessons bring to light new knowledge about fire -- the effect of building construction or contents, human behavior in fire, etc. In other cases, the lessons are not new but are serious enough to highlight once again, with yet another fire tragedy report.

The reports are sent to fire magazines and are distributed at national and regional fire meetings. The International Association of Fire Chiefs assists USFA in disseminating the findings throughout the fire service. On a continuing basis the reports are available on request from USFA; announcements of their availability are published widely in fire journals and newsletters.

This body of work provides detailed information on the nature of the fire problem for policymakers who must decide on allocations of resources between fire and other pressing problems, and within the fire service to improve codes and code enforcement, training, public fire education, building technology, and other related areas.

The Fire Administration, which has no regulatory authority, sends an experienced fire investigator into a community after a major incident only after having conferred with the local fire authorities to insure that USFA's assistance and presence would be supportive and would in no way interfere with any review of the incident they are themselves conducting. The intent is not to arrive during the event or even immediately after, but rather after the dust settles, so that a complete and objective review of all the important aspects of the incident can be made. Local authorities review USFA's report while it is in draft. The USFA investigator or team is available to local authorities should they wish to request technical assistance for their own investigation.

This report and its recommendations were developed by USFA staff and by TriData Corporation, Arlington, Virginia, its staff and consultants, who are under contract to assist the Fire Administration in carrying out the Fire Reports Program.

The United States Fire Administration greatly appreciates the cooperation and information received from Hamlet, North Carolina Fire Chief David Fuller and Captain David Knight, State Fire and Rescue Division Deputy Commissioner Timothy L. Bradley and Deputy Director Ray Eastman and Special Agent David H. Campbell of the State Bureau of Investigation. Thanks also go to officials of Tyson Foods, Inc., Shannon Weathers, Mike Edmunds and Mike McAlister.

For additional copies of this report write to the United States Fire Administration, National Fire Data Center, 16825 South Seton Avenue, Emmitsburg, Maryland 21727.

Chicken Processing Plant Fires
Hamlet, North Carolina
(September 3, 1991)
North Little Rock, Arkansas
(June 7, 1991)

Investigated by: Jack Yates

This is Report 057 of the Major Fires Investigation Project conducted by TriData Corporation under contract EMW-90-C-3338 to the United States Fire Administration, Federal Emergency Management Agency.

Federal Emergency Management Agency

United States Fire Administration
National Fire Data Center

Chicken Processing Plant Fires
Hamlet, North Carolina, and
North Little Rock, Arkansas

Investigated by: Jack Yates

Local Contacts:

Hamlet, North Carolina Fire
Chief David Fuller
Captain David Knight
Hamlet Fire Department
302 Champlain Street
P.O. Box 1229
Hamlet, North Carolina 28345

Deputy Director Ray Eastman
Special Agent David H. Campbell
Arson Division
North Carolina State Bureau of Investigation
P.O. Box 29500
Raleigh, North Carolina 27626

Timothy L. Bradley
Deputy Commissioner
Fire and Rescue Division
North Carolina Department of Insurance
P.O. Box 26387
Raleigh, North Carolina 27611

North Little Rock, Arkansas Fire
Shannon Weathers
Fire Safety Coordinator Loss Control
Mike Edmunds
Corporate Safety Director
Mike McAlister
Plant Manager - Prospect Farms
Tyson Foods, Inc.
P.O. Box 2020
Springdale, Arkansas 72765-2020

OVERVIEW

The morning work shift of employees at the Imperial Foods Processing Plant in Hamlet, North Carolina, had just begun when a fire

SUMMARY OF KEY ISSUES	
Issues	**Comments**
Casualties	Twenty-five fatalities and 54 people injured in varying degrees.
Building Structure	Poultry processing plant of 30,000 square feet with open work areas, sealed concrete slab floor, ceramic tile walls, and ceilings of formica-type finish. Interior kept cool.
Origin and Cause	The conveyor to a cooker had hydraulic line repaired which burst when brought up to full pressure. Hydraulic fluid expelled at 800 to 1,500 psi, ignited by heating gas plumes of cooking vat.
Fire Spread	Immediate and very rapid spread of heavy black smoke throughout the building.
Evacuation	Fireball and rapid spread of smoke caused disorderly evacuation attempts. Several exit doors locked, drove employees to seek refuge in cooler or seek other exits. Rapid build-up of toxic gases killed personnel attempting to escape.
Detection and Alarm	Plant Operations Manager found phone line already inoperable, ran to vehicle and drove to fire station.
Response	Rapid response by combination department and people from immediate community including medical personnel who ran from nearby hospital. Search and rescue delayed by heavy smoke and heat. Ample mutual aid from neighboring communities, including helicopter transport of victims to regional medical facilities.
Code Enforcement	During the 11-year operation of the plant, no inspection conducted by North Carolina Occupational Safety and Health Administration.
Critical Incident Stress	Debriefings provided through Pee Dee Council of Government. Many fire service personnel involved in incident knew or were related to the victims.

occurred, at approximately 8:15 a.m. on September 3, 1991. The rapid spread of heavy smoke throughout the structure ultimately resulted in 25 fatalities and 54 people being injured in varying degrees. Of the people who died, 18 were women and seven were men.

A similar type fire occurred at a chicken processing plant in North Little Rock, Arkansas on June 7, 1991 but with no fatalities or injuries. Following the description of the Hamlet fire below, the North Little Rock fire is summarized along with the factors in the different outcomes of these two fires.

THE BUILDING

Imperial Foods occupied a one-story brick and metal structure that over the years had been used for various food product operations. Reportedly, the previous operation had been for dairy products. As such, the interior work areas had walls, ceilings, and floors conducive for that type of operation. This meant that these three surface areas were of materials that could be washed down. The floor was a sealed concrete slab, the walls were ceramic tile, and the ceilings were a formica type finish. The total square footage was approximately 30,000. For the layout of the plant see Appendix A.

Imperial Foods operations did not include the slaughter of poultry. Rather, poultry parts were shipped to the plant, which prepared and cooked the chicken. The cooked chicken would then be distributed to various markets for use in restaurants.

The plant had a total employment of approximately 200 people, with a normal shift having around 90 employees. Preparation of the poultry products included trimming, marinating, cutting, and mixing. The prepared meat would then be cooked, quick-frozen, packed, and prepared for shipping. Storage areas varied from large drive-in coolers to quick-freezing units.

The plant layout allowed easy movement of products from one area to another by electrical forklift pallet movers. The entryways between the various preparation areas were for the most part open while some entrances had a curtain of plastic strips to assist in holding refrigerated air in the rooms. The freezers and coolers had standard refrigeration doors.

The preparation areas were for the most part cooled or refrigerated in order to prevent food spoilage. Accordingly, door openings were designed in a manner to seal in the structure, with door seals similar to

those on a refrigerator. This was necessary to assist in maintaining a constant temperature in work areas.

Day to day the contents inside the building did not represent a major fuel load problem. The only combustible products were items such as paraffin-coated shipping boxes and wood pallets. Therefore, the probability of having an extensive fire was considered remote.

The bulk of the food processing operations was performed in the south three-fourths of the complex. The north one-fourth was predominantly for storage and loading. The main operations areas by virtue of their cooled, open rooms did present a problem in that there were no smoke or heat barriers between work areas. This meant that in the event of any type of fire, there would be nothing to impede the travel of heat and smoke. Furthermore, the predominance of hard, smooth surfaces meant there was little available material to absorb heat and smoke.

There were exterior personnel doors throughout the structure. These included the main entrance on the east side; the southeast loading and trash compacting dock; doors from the break room and the equipment room to the outside; and a door from the packing room which led to the north one-fourth of the building complex. However, the locations of some of these exits and their sizes would in all probability have excluded them from being considered appropriate as part of an evacuation plan.

THE FIRE

The area identified on the Floor Plan in Appendix A as the Processing Room is the room where the fire incident occurred. This area is centrally located within the building complex. Any incident occurring in this area could adversely affect much of the building operations and personnel.

Poultry products that had already gone through the various marinating and mixing procedures were taken by conveyor to a cooking vat in the Processing Room, which contained soybean oil. The oil was maintained by a thermostat control at a constant temperature of 375°F plus or minus 15°F.

A maintenance worker who survived the fire indicated that the hydraulic line that drove the conveyor had developed a leak. The hydraulic line was turned off and drained of fluid. Then the maintenance worker disconnected the leaking line and replaced it with a factory prepared line.

The factory prepared line, however, was found to be too long and would have dragged on the floor, possibly causing people working in the area to trip. So the maintenance worker reportedly asked for and gained permission to cut the factory prepared hydraulic line to an appropriate length, replaced the end connector with their own connector, and put the line back in place. This line has been described as a 3/4-inch flex line rated to carry 3,000 psi. Information from plant personnel indicated normal pressure was kept at approximately 800 psi, but it would at times fluctuate as high as 1,200 to 1,500 psi.

The hydraulic line was brought back to operating pressure. Shortly afterward it separated at the repaired connector point. The connector was some four to six feet above floor level with hydraulic fluid being expelled at a pressure of 800 to 1,500 psi. It obviously began to splatter off the concrete floor. Droplets were bouncing back onto the gas heating plumbs for the cooking vat, which turned them into vapor. The vapors then were going directly into the flame. The vapors had a much lower flashpoint than the liquid hydraulic fluid and therefore rapidly ignited.

In sum, the pressurization of the hydraulic fluid combined with the heat was causing an atomizing of the fuel which in all probability caused an immediate fireball in and around the failed hydraulic line and the heating plumbs.

The ignition of the fuel caused an immediate and very rapid spreading of heavy black smoke throughout the building. Seven workers were trapped between the area of origin and any escapable routes.

Measurement of the system during the investigation after the fire indicated 50 to 55 gallons of hydraulic fluid fueled the fire before electrical failure shut the system down. (Investigators stated that if the hydraulic system was fully charged and its reservoirs filled to capacity it would have held 110 gallons of 32 weight ISO hydraulic fluid.)

In addition to the hydraulic fluid, the fire reached a natural gas regulator that in turn failed and caused an induction of natural gas to the fire increasing the intensity and buildup of toxic gases.

The fires in both this incident and the North Little Rock incident were centered around the cooking vat areas and expanded outward from there. In both incidents, the vats ultimately did ignite in latter stages of the fire, but in the initial stages the vats did not ignite. The vats in both locations have a hood-mounted system over them with built-in CO_2 heads.

But after considerable burning with secondary falldown, the oil in both vats did eventually ignite and burn.

Witness reports indicate much of the plant was enveloped in under two minutes. Workers throughout the plant found their visibility eliminated and oxygen quickly consumed. Hydrocarbon-charged smoke, particularly as heavy as this, is extremely debilitating to the human body and can disable a person with one or two breaths. This was confirmed as autopsies conducted on all of the fatalities found that virtually all died of smoke inhalation as opposed to direct flame injury.

Survivors indicate there was no real organization in the plant's evacuation, and this was confirmed by the locations of the bodies. Several employees in the central part of the structure moved to the trash compactor/loading dock area near the southeast corner of the building. It was here they found one of the personnel doors to the outside locked. A trailer was backed into the loading dock cutting off all exiting through this area. One woman became trapped between the compactor seal and the building wall while trying to squeeze through an opening. A number of remaining people in this area went into a large cooler adjacent to the loading dock, but failed to pull the sealed door shut thus allowing smoke infiltration into the cooler. The cooler had the largest single fatality count area with 12 deceased people being removed from this room along with five injured people.

The second largest fatality area were the seven trapped in the processing room between the fire and any escape route. Three additional bodies were found in the trim room area, one of whom was a route salesman who had been filling food machines in the break room. The exterior personnel door in the break room was the other door locked from the outside.

The people who died in this tragic fire were as follows:

Name	*Age*	*City*
Josephine Barrington	63	Hamlet
Peggy Anderson	50	Hamlet
Mary Lillian Wall	50	Rockingham
Philip R. Dawkins	49	Rockingham
Minnie Mae Thompson	46	Hamlet
Janice Marie Wall Lynch	43	Hamlet
Elizabeth Ann Bellamy	42	Bennettsville, SC
Cynthia S. Wall	41	Rockingham
Josie M. Coulter	40	Rockingham

Bertha Jarrell	40	Rockingham
John Robert Gagnon	39	Hamlet
Rose Marie Gibson Peele	39	Bennettsville, SC
Mary Alice Arnold Quick	38	Hamlet
Fred Barrington, Jr.	37	Rockingham
Martha E. Ratliff	36	Hamlet
Gail V. Campbell	33	Hamlet
Rosie Ann Chambers	31	Ellerbe
Michael Morrison	31	Hamlet
Rose Lynette Wilkins	30	Laurel Hill
Brenda Gail Kelly	28	Rockingham
David Michael Albright	24	Hamlet
Margaret Banks	24	Laurinburg
Donald Bruce Rich	24	Ellerbe
Jeffrey Antonia Webb	24	Hamlet
Cynthia Marie Ratliff	20	Hamlet

FIRE SUPPRESSION AND EMERGENCY MEDICAL SERVICES

Upon discovery of the fire, the operations manager of the plant attempted to call the alarm to the Fire Department, but found that phone lines were already inoperable. (Imperial Foods was not equipped with pull-station alarms, nor does the town have 911.) He then ran to his vehicle parked outside and drove some three to five blocks to the fire station.

The initial equipment left the station at 8:24 a.m. and was on the scene three minutes later. Fire Chief David Fuller indicated the first smoke he observed was grayish-yellow in color. He stated that Hamlet has two paid firefighters on duty at all times with 28 volunteers. Of the 28 volunteers, 22 responded to the scene. (See Appendix B for Fire Department Incident Report.) He also stated there is a county mutual aid agreement and that Captain Calvin White immediately called for the Rockingham Fire Department to stand in at the station. Lieutenant David Knight indicated that upon their arrival on the scene they immediately encountered three DOAs and 15 to 18 casualties. Their first actions were to administer first-aid and attempt victim rescue. Once they had backup companies on the scene, the fire was attacked. Extremely heavy volumes of smoke prevented them from pinpointing the seat of the fire in the early stages. AFFF foam was used to extinguish the vats which eventually caught fire. Upon seeing the magnitude of the incident, additional mutual aid assistance was called in, including the East Rockingham, Cordova, and North Side Fire Departments.

In addition, two EMS units were initially brought in by volunteers with a third unit added later. Shortly afterward, a call was made to the County Sheriff's Office to call all available EMS units to the scene. These consisted of two from Rockingham, three from the county, one from Cordova, one from Ellerbe and one from Hoffman. Also, there were helicopters from Winston-Salem, Chapel Hill, Duke, and Charlotte which took patients from the hospital in Hamlet to the various burn units. The helicopters did not operate from the scene.

Chief Fuller stated that the City of Hamlet did not have its own inspectors and relied on one of the county's three inspectors. The county has an inspector for building codes, another for electrical and another for plumbing. These inspectors are primarily for new construction or remodeling. Hamlet construction codes reference the Southern Building Code. Chief Fuller stated the local code requires "periodic" inspections but do not specify a schedule or frequency.

The original building at Imperial Foods was built in the early 1900's. Today no one appears to know what codes existed when the plant was first built. Chief Fuller indicated there had been several fires in the plant over the years, some before Imperial Foods took over the facility. Imperial was operating the plant in 1983 when one of the previous fires occurred after which a CO_2 system and hood over the cooker was installed. Subsequently, they were required to install a CO_2 system by the county inspector.

Firefighters immediately began a search and rescue operation but were met by considerable heat and fire coming from the processing area. They had to withdraw and reposition to initiate their attack on the fire through the equipment room which was next to the processing room. The fire was brought under control at approximately 10:00 a.m.

Search and rescue efforts continued during the fire suppression with injured people and fatalities being located from the first entry at approximately 8:45 a.m. with the final victim being located shortly after 12:00 noon. Concern for the integrity of the roof structure prevented earlier discovery of victims in the processing room area.

Treatment of casualties was being carried out during the entire incident until all were removed from the fire ground. Word of the incident's severity spread through the community quickly, and virtually everyone involved with medical care in the area responded to the plant site. The Hamlet hospital is approximately six blocks from Imperial Foods.

Chief Fuller was asked to evaluate the handling of the incident with reference to fire suppression, rescue, and EMS to which he indicated he felt there were more than adequate numbers of personnel and equipment given the layout of the incident site. As it was, he stated there were minor problems of some EMS equipment running over charged hose lines. There was some problem later in the fire suppression with air for the SCBA supply because tanks were being used to assist injured victims as well as supplying fire personnel. Chief Fuller stated the entire incident centered around one problem – lack of enforcement of existing codes.

DISASTER PLAN

Hamlet does have a disaster plan in place which coincides with the county plan. This fire occurred so rapidly and was so serious that all of the resources planned for were immediately brought to the scene. Under the plan the mayor is in charge of media relations and this became an enormous task, which was handled well even though much greater demands were being made upon them than had ever been planned for.

STRESS MANAGEMENT

The Hamlet Fire Department personnel suffered severe stress and emotional reactions because the community was small and the firefighters knew many of the victims. A critical incident stress debriefing was arranged through the Pee Dee Council of Government (Region H). Five counsellors were brought in and 50 to 60 people attended the counselling sessions.

CODE ENFORCEMENT HISTORY

Much discussion has taken place about the lack of inspections conducted by the North Carolina Department of Occupational Safety and Health Administration (OSHA) at the Imperial Food operations. In fact, during the 11-year operation of this plant, N.C.O.S.H.A had never inspected the facility.

NORTH LITTLE ROCK, ARKANSAS, FIRE

During the course of the investigation of the Hamlet, North Carolina, fire, information was received that another company had experienced a similar fire at a plant in Arkansas. Further inquiries revealed that indeed a similar fire had occurred at a Tyson Foods, Inc. facility in North Little Rock, Arkansas, on June 7, 1991, but with dramatically different results.

Tyson Foods, Inc. is the largest producer of poultry products worldwide. Corporate officials strongly believe that their safety program is what made the difference between their fire and the Hamlet, North Carolina, fire. This company has over the years enacted many proactive fire safety programs.

Their operation and plant type in North Little Rock is similar in product production but larger in size than the Hamlet plant. The fire that occurred on June 7, 1991 was in the same plant area as the Hamlet fire in that it broke out in the hydraulic system of their cooker (also made by Stein and Associates, as was the one in Hamlet).

Unlike the Hamlet fire though, the hydraulic failure occurred within fixed plumbing. A flange type nut over time had the threads stripped as a result of vibration and when the threads failed, hydraulic fluid was expelled at approximately 800 psi. As with the Hamlet fire, the fluid was immediately in an atomization state. This was occurring within the gas heating plume areas and fire ignited. The resulting fire created a heavy black smoke and, as seen in Hamlet, virtually coated everything it spread to.

The Tyson plant, however, had in place numerous safety factors that averted disaster. They enforced life safety codes to include not only plant design but practiced emergency drills.

Tyson Foods has a fire safety director who has implemented evacuation programs throughout the company's entire operations. These programs involved both hourly personnel and management staff in safety committees. They have formed fire brigades and have a program called the Incipient Fire Force, which involves all personnel and has a common goal to educate and train all employees in loss prevention and to take proper action should an emergency occur.

On June 7, there were 115 people working at the North Little Rock plant with some 12 to 14 people in the packaging area above the production room where the fire occurred. The plant design was such that the minimal number of people needed to operate the cookers were the only ones in the actual ignition area. The cookers were in rooms with 2-hour fire rated walls and ceilings, and the cookers were fed by conveyors through small openings. When the worker on the cooker that ignited discovered the fire, he first reached for an extinguisher but immediately realized it was spreading too fast and sounded the alarm.

Within three minutes, everyone was out of the plant and supervisors immediately identified all employees by name to make certain all were accounted for. No injuries of any kind occurred. Upon fire equipment arriving at the scene, fire brigade members, wearing haz mat protective clothing and SCBA equipment, met the firefighters and guided them through the plant to the seat of the fire.

The initial response came from Station 4 of the North Little Rock Fire Department. Backup came from the North Little Rock central station and also from the Little Rock Fire Department.

They were on the scene for approximately 9-1/2 hours. There were a total of 23 fire service personnel who responded with a total of six engines, one piece of aerial equipment, and three other types of vehicles.

As with the Hamlet fire, heavy, black smoke quickly permeated the entire facility. The fire walls surrounding the cookers no doubt gave the people evacuating more lead time -- this was part of their pre-fire planning in that the cookers were designed to be isolated as much as possible from the remainder of the plant. In addition, Tyson allows absolutely no combustible materials such as wood pallets or paraffin-coated cardboard boxes inside the cooker rooms.

These types of operations are viewed as a wet industry for the most part. Accordingly, much of the facilities are not sprinklered. Tyson's safety personnel did not feel that sprinklers would have contributed to the prevention of loss of life due to the nature of the hydraulic-fluid-fueled fire. They do, however, have sprinkler protection in all areas that are non-wet operations.

Damages to the structure amounted to approximately $8 million and the plant was down for 13 weeks. The additional loss in production, wages, cleanup, etc. was approximately $4 million making the total loss approximately $12 million. But upon getting back to production, the remodeling of the plant eliminated certain inefficiencies and implemented numerous safety features beyond what they already had. The plant currently has 215 employees, which is slightly less than the work force at the time of the fire.

FIRE PROTECTION EQUIPMENT AND SAFETY PROGRAMS

The plant now has shut off valves designed for each cooker. These valves have four functions in that they are calibrated to the hydraulic fluid velocity or flow of what each cooker needs or uses. Should there be 1) a

sudden free flow of fluid; 2) a drop in line pressure; or 3) an electrical failure, the valve will shut the hydraulics down. It is also tied into the CO_2 system. In addition, they have mandated that if a system is installed by an outside manufacturer, then training must come from the manufacturer on maintenance of the item.

In addition to the shut off valves, Tyson had remote hydraulic shut down switches installed at strategic locations throughout the plant and next to pull alarms. Any one of these emergency switches being activated immediately shuts down *ALL* hydraulics in the plant.

Emergency lights were in place above all exits. At the time this report was prepared, Tyson officials were considering adding a second emergency light lower to the floor as an extra assist should there be a sudden induction of wet, heavy smoke, as experienced at the June 7 fire.

They already had negative air flow pressure systems for ammonia releases, which are activated by sensors. They indicate rapid heat rise sensors could be added to exhaust heat and/or smoke.

Tyson Foods requires that each of their facilities have a minimum of two fire drills a year; most of their plants do it on a quarterly or monthly basis. When a drill is conducted, production is affected and some food products may have to be discarded to meet USDA inspections. Even so, Tyson Foods makes this mandatory. They have a formal safety policy, and, in addition, each plant has a required Monthly Fire Inspection Checklist they must submit to corporate headquarters. (See Appendix D.) The checklist covers many areas and must be signed off by the Fire Brigade Chief and Facility Manager. This type of checking helps them to detect deficiencies before they develop into problems. This was recently demonstrated in one of their Texas plants when a monthly checklist noted a drop in water pressure to their sprinkler system. Upon further inspection, they found that the city had changed their water usage classification and dropped their flow and pressure. Without a monthly checklist, this might not have been detected for months or until an emergency occurred.

Tyson Foods has a daily inspection of CO_2 systems. Also, they use permits that must be issued before any operation such as cutting and welding takes place. They also have lock-out, tag-out procedures that, simply stated, means before any repaired system is put back to use it is tested. Had they discovered the failed flange nut at the North Little Rock plant before the fire, they would have replaced the failed area, brought it

back to operating pressure, and made sure it would hold before turning gas back on to the heating plumbs.

Tyson Foods has incentive/reward programs to encourage all personnel to be on the lookout for added safety ideas. The incentive bonuses are based on paperwork turned in in a timely manner, site visitations/inspections, and their participation in documented safety training. Tyson's has installed within their break rooms suggestion boxes for any complaints or suggested improvements. These are checked daily and responded to by the management staff of that facility.

Tyson Foods has Crisis Management Manuals in place at each of their facilities. Plant management is totally familiar with each phase of those manuals and they in turn disseminate the information to each employee. Tyson Foods officials feel their emphasis on life safety also leads to protection of property and continuity of operations.

As a matter of coincidence, the last thing stated by one of the Tyson safety officers was that the rules and safety codes to protect personnel and property are already written and in existence, but for them to be effective they must be enforced. This was one of the final statements of Chief Fuller at the Hamlet Fire Department as well.

LESSONS LEARNED

1. Life safety codes must be enforced.

Life safety codes cover a broad range of topics but the main goals to be achieved are to 1) plan building layouts/construction to reduce hazards and have available the proper number of exits; 2) provide detection and adequate suppression equipment where needed; and 3) train and educate personnel in loss prevention and the proper action to take in the event of emergencies. The blatant problem of having exit doors locked on a continuous basis is clearly one that must be addressed by enforcement officials. Enforcement is as essential as the code requirements themselves. Enforcement can be by state or local officials. And in some cases, as with Tyson Foods, industry itself takes its own initiatives in both code enforcement and proactive fire safety programs in its plants.

2. Cooking areas must be separately partitioned from other employee work areas.

Any time there is a food processing plant cooking operation, with moving parts and high pressure equipment, the risk factor is greatly increased that a fire will occur at some time. As such, it is imperative that the cooker operations be partitioned off from the remainder of the building, and workers, as much as possible. The rebuilt Tyson plant designed their cookers to be inside 2-hour fire-rated walls with openings for incoming and outgoing food. Safety doors were installed and the minimal number of needed employees was all that were inside the cooker room. In addition, absolutely no combustible products were allowed inside the room.

3. Building exits in wet type operations should have double emergency lighting, one positioned above the door and one low to the floor.

A fast developing, heavy smoke was present in both of these fires. The work areas are kept cool according to USDA regulations for food preservation, so the relative humidity is high. These are described as wet operations. When heat-charged smoke is injected into this cool, damp air, it banks down more quickly than normal. People are taught from an early age that in the event of fire they should get as close to the floor as possible to maximize safe evacuation. Heavy smoke such as was experienced in these incidents obscures the upper lights at the emergency exits. Additional emergency lights in protective cages near floor level would assist personnel in locating exits. Consideration might also be give to having strobe lights as part of the emergency lighting system.

4. High pressure equipment maintenance and repairs must be limited to factory trained personnel and specifications.

Operations such as these plants have extensive hydraulic systems. They operate at considerable pressures and, as in these two cases, are integral parts of cooking processes. Moving parts and high pressures will naturally increase the likelihood of failure. Maintenance must be a constant ongoing process. For maximum safety, maintenance personnel must be trained by the factory representatives. If any parts are replaced, they must conform to factory specifications or not be used. If a maintenance division alters any part of the high pressure system, their alterations must meet or exceed factory specifications.

5. High pressure equipment in probable incident areas should have built-in catastrophic shut down valves.

Inlying valves have been designed that are sensitive to multiple functions for high pressure hydraulic equipment. These valves are calibrated to the prescribed hydraulic fluid velocity or flow of the equipment needed. The vales will automatically shut down fluid flow if there is 1) a sudden free flow, 2) a drop in line pressure, or 3) an electrical failure. In addition, these valves can be linked to the CO_2 fire suppression systems.

6. Negative air flow systems in these facilities could enhance safety by being modified to also accomplish smoke evacuation.

Many plants similar to those in the Hamlet and North Little Rock fires have negative air flow systems in the event of an accidental ammonia release. These are activated by sensors and can purge the area of toxic fumes very quickly. If, in addition to the gas sensor, a rapid rise heat sensor was added, these systems could pull the heavy, wet smoke away from the lower levels in the event of a fire.

7. State and federal inspectors from various departments should be cross-trained.

Much has been said about the lack of inspections done prior to the Imperial Foods tragedy. The State OSHA inspector force was small in numbers and simply could not cover all of the industry. Yet there were USDA inspectors frequently present because of their responsibilities over the food processing industry. While it may not be possible to teach USDA personnel all aspects of an OSHA inspector's responsibilities, certainly they could be encouraged to recognize major problems while carrying on their assigned duties and alert the state OSHA office or other appropriate authorities including plant management.

8. Establish a "worry free" line of communications for industry employees.

Although it has not been acknowledged firsthand and was told only through the media, reports have surfaced that workers inside the Hamlet Plant were afraid to say anything about safety conditions due to fear of being fired. In order to eliminate this type of possible problem, communications with plant management or regulatory authorities should be established. States may wish to establish agencies/systems such as a known

agency/address to write to or an 800 phone number. The identity of the individual reporting deficiencies could then be protected.

9. The number of OSHA safety inspectors must be increased.

As with many governmental departments, OSHA has had their budgets cut and funds have been directed to other areas. The tragedy of the Hamlet fire demonstrates vividly why cuts should not take place within the area of code inspections and enforcement. In North Carolina (and in other states as well), the number of staff should be based on the number of inspectable properties and time it takes to meet inspection schedules.

10. Emergency exit drills must be incorporated into industry policies.

The posting of emergency routes and exits throughout a structure simply will not suffice. The actual practice of the routes and exits must be done. The exit drills should include a system to number and identify employees in order to make certain that everyone has been evacuated. The drills should be conducted often enough that employees will be constantly aware of emergency procedures. The actual practice of drills paid off for Tysons Food as they had all 115 employees out of the building within three minutes and ***all were accounted for***, through a system of employee identification.

Appendices

A. Imperial Foods Plant Floor Plan

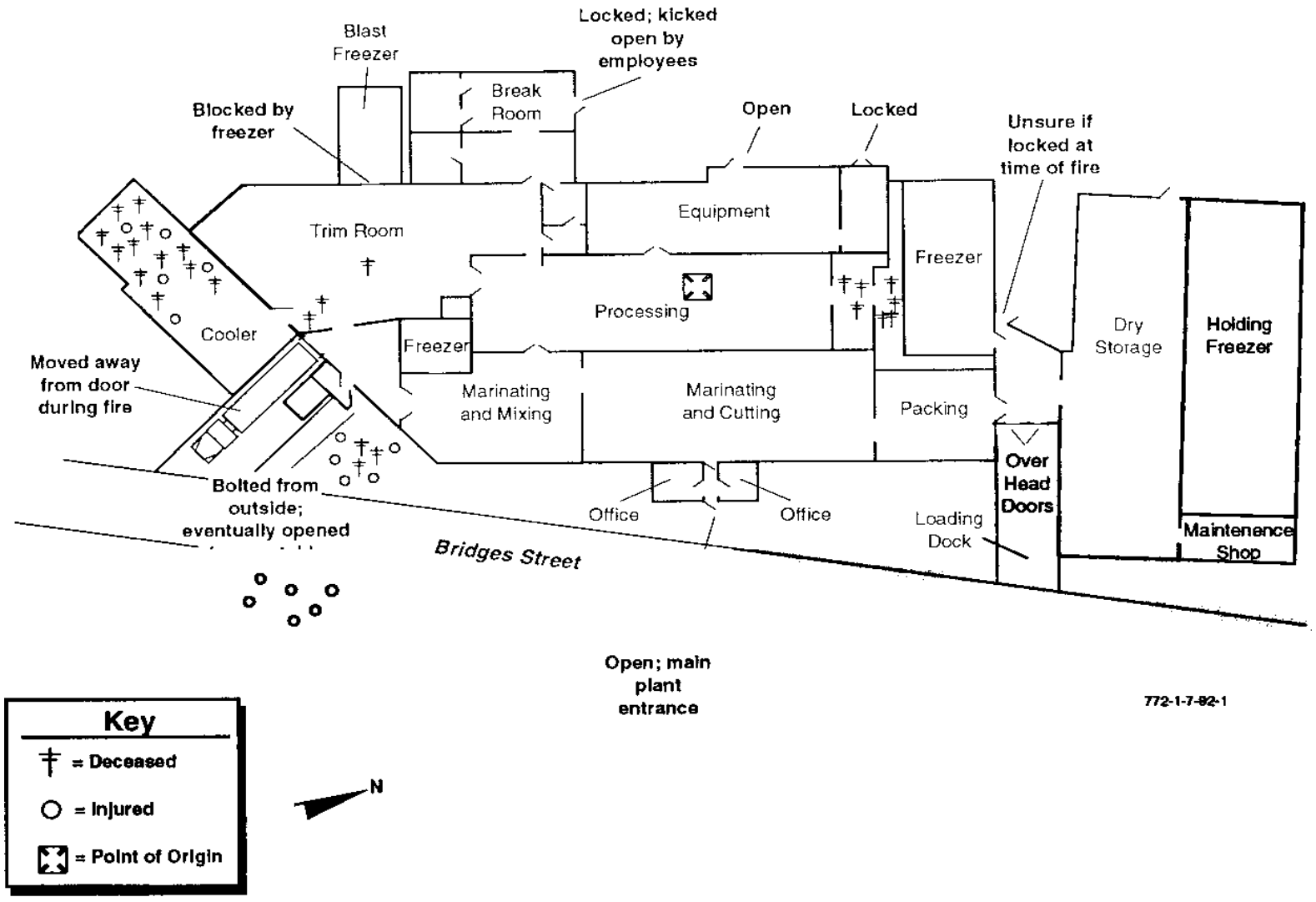
B. Hamlet, North Carolina, Fire Department Incident Reports

C. Imperial Foods Plant Fire Photographs

D. Tyson Foods Safety Policy, Monthly Fire Inspection Checklist, and Other Fire Safety Program Materials

Appendix A

Imperial Foods Plant Floor Plan


Blast Freezer
Locked; kicked open by employees
Break Room
Blocked by freezer
Open
Locked
Unsure if locked at time of fire
Equipment
Trim Room
Freezer
Processing
Cooler
Freezer
Dry Storage
Holding Freezer
Moved away from door during fire
Marinating and Mixing
Marinating and Cutting
Packing
Over Head Doors
Bolted from outside; eventually opened
Office
Office
Loading Dock
Maintenence Shop
Bridges Street
Open; main plant entrance
772-1-7-82-1
Key
= Deceased
= Injured
= Point of Origin
N

Appendix B

Hamlet, North Carolina, Fire Department Incident Report

INCIDENT REPORT

0 7 7 0 3 | Hamlet Fire & Rescue | 0 7 7 0 0 9 1 1 0 0 1 9

Mo.	Day	Yr	Day of Week	Alarm Time	Time Out	Arr. Time	Time In	Tot. Time Out
0 9	0 3	9 1	3	0 8 2 4	0 8 2 5	0 8 2 8	1 9 1 5	0 5 1 1

INCIDENT ADDRESS OR LOCATION
Street: 40 Bridges Street
Rm. or Apt.:
City: Hamlet
State: NC
Zip: 2 8 3 4 5

FIRE SERVICE RESPONSE
Personnel: 2 2
Engines: 7, 11, 2
Aerials: 1
Tankers:
Other Vehicles: Rescue 7, 8, 9, ST-1, ST-2, Chief 1 — 6

OCCUPANT NAME
Last, First: Imperial Food, Inc.
Phone: (919) 582-3552

OWNER NAME
Last, First: Roe, Emmit
Phone: ( )

OWNER ADDRESS
Street: 1155 Hammond Drive Suite 5230
City: Atlanta
State: Georgia
ZIP: 3 0 3 2 8

Mutual Aid (check one)
1 [✓] Received
2 [ ] Given
3 [ ] Not Apply

Hazardous Materials Involved
1 [ ] Yes 2 [✓] No

PLEASE PUT APPROPRIATE CODE NUMBER IN BOX FOR EACH CATEGORY

METHOD OF ALARM FROM PUBLIC
1 Telephone
2 Municipal alarm system
3 Private alarm system
4 Radio
5 Verbal
6 Home dialer
7 Tie-line
8 Voice signal: Fire alarm system
9 Other
[5]

TYPE OF SITUATION FOUND
11 Structure fire
12 Any fire outside a structure where the material burning has a value
13 Vehicle fire
14 Trees, brush, grass fire
15 Refuse fire (material burning has no value)
16 Explosion, no after-fire
17 Outside spill, leak with fire
19 Fire/explosion not classified
20 Overpressure rupture (no combustion)
30 Rescue
32 EMS only
40 Hazardous condition
50 Service call
60 Good intent call
71 False malicious
73 False malfunction
74 False unintentional
99 Other situation found
[11]

TYPE OF ACTION TAKEN
1 Extinguishment
2 Rescue
3 Investigation
4 Remove hazard
5 Standby
6 Salvage
7 Medical Aid
8 Fill in, move up
9 Cancelled enroute
0 Water supply
Primary: [2]
Secondary: [1]

Is property abandoned or vacant? 1 [ ] Yes 2 [✓] No

REQUIRES COMPLETION OF INJURY & FATALITY REPORT
No. Incident-related injuries: Fire 1 Srv. 1 Other 25
No. Incident-related fatalities: Fire Srv. 0 Other 25
Is juvenile suspected in ignition? 1 [ ] YES 2 [✓] NO

Fill in this section if "TYPE OF SITUATION FOUND" is 11, 12, 13, 16, 17, 19 ONLY (14, Optional)
(Refer to coding sheet)

Ignition Factor: Accidental Fuel Spill	41	Area of Fire Origin: Processing	38
Form of Heat of Ignition: Fuel Fried Object	10	Type of Material Ignited: Plan/comb liquid	20

Fixed Property Use: MANUFACTURING — 700
Equipment involved in Ignition: Processing Equipment — 3
Form of Material Ignited: Power transfer equip — 60

If Heating Equipment Involved, Type of Fuel Used: 1 Kerosene 2 LPG 3 Electric 4 Wood 5 Coal 6 Oil 7 Natural Gas 8 Gasoline 9 Other 0 Not Apply — [0]

PROPERTY DAMAGE CLASSIFICATIONS
1 $1-99
2 $100-999
3 $1,000-9,999
4 $10,000-24,999
5 $25,000-49,999
6 $50,000-149,999
7 $150,000-499,999
8 $500,000-999,999
9 $1,000,000 or more
0 NO DOLLAR LOSS
Value: [9]
Damaged: [9]

Estimated Value	
Estimated Structural Damage	
Estimated Contents Damage	

CONDITION UPON ARRIVAL
1 Overheat
2 Smoldering
3 Open flame
8 Out on arrival
[3]

MOBILE PROPERTY TYPE
11 Automobile
12 Bus
13 All-terrain vehicle
14 Motor home
15 Travel trailer
17 Mobile home
20 Freight road transport
30 Rail transport
40 Water transport
50 Air transport
60 Heavy equipment
70 Special vehicles, containers
99 Other mobile property types
00 Not Apply
[00]

If Mobile Property	Yr.	Make	Model	St.	Lic. Number	Serial Number/VIN

If Equipment involved in ignition	Yr.	Make	Model	Serial Number

NO. OF STORIES
1 Single Story
2 Two Stories
3 3 or 4
4 5 or 6
5 7 to 10
6 11 to 20
7 21 to 50
8 Over 50
9 Below Grade

Building Height: [1]
Level of Fire Origin: [1]

EXTENT OF DAMAGE
1 Confined to the object of origin
2 Confined to part of room or area of origin
3 Confined to room of origin
4 Confined to fire-rated comp. of origin
5 Confined to floor of origin
6 Confined to structure of origin
7 Extended beyond structure of origin
9 No damage of this type

Flame: [6]
Smoke: [6]
Water: [3]

CONSTRUCTION TYPE
1 Fire resistive
2 Noncombustible
3 Heavy timber
4 Ordinary
5 Frame
0 Other
[4]

SPRINKLER PERFORMANCE
1 Equipment operated
2 Equipment inservice, did not operate
3 Equipment present: fire too small to operate
8 No equipment present
9 Equipment not in service
[8]

DETECTOR PERFORMANCE 1 [ ] Present 2 [ ] Not Present
If Present, Type of Closest Unit: 1 [ ] Smoke 2 [ ] Heat
Power Supply: 1 [ ] Battery 2 [ ] A/C
1 In room of fire: operated
2 Not in room of fire: operated
3 In room of fire: did not operate
4 Not in room of fire: did not operate
5 In room: fire too small to operate
9 Not classified (Not Apply)

Fire Referred for Investigation to: SBI — 1 [✓] Yes 2 [ ] No

Officer in Charge (name, position)	Member Making Report
Chief Fuller	Capt. Calvin White

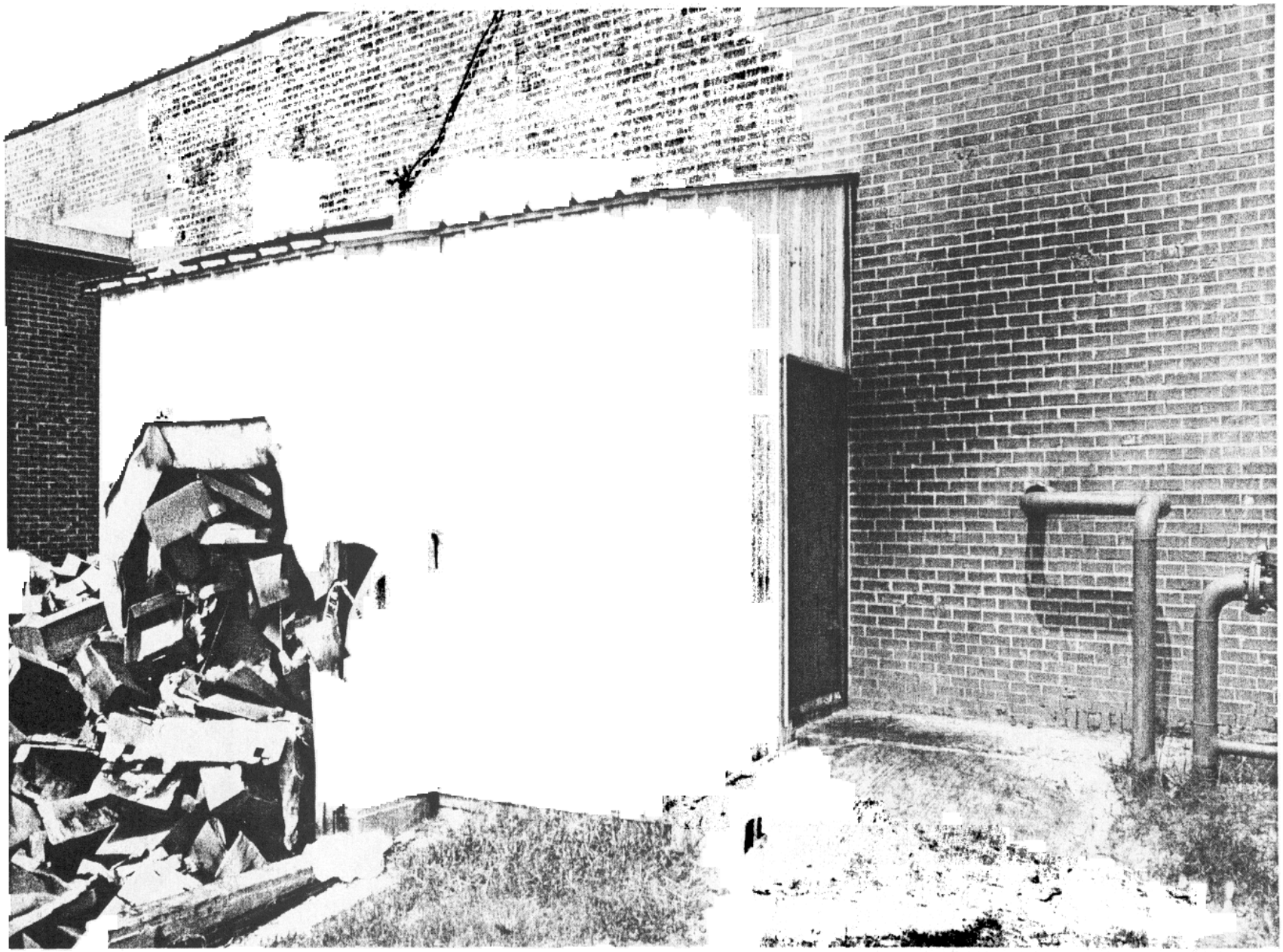
Remarks:

Appendix C

Imperial Foods Plant Fire Photographs

(Photo by Jack Yates

View of the south end, the southeast corner, and the front (east side) of the Imperial Foods Building.

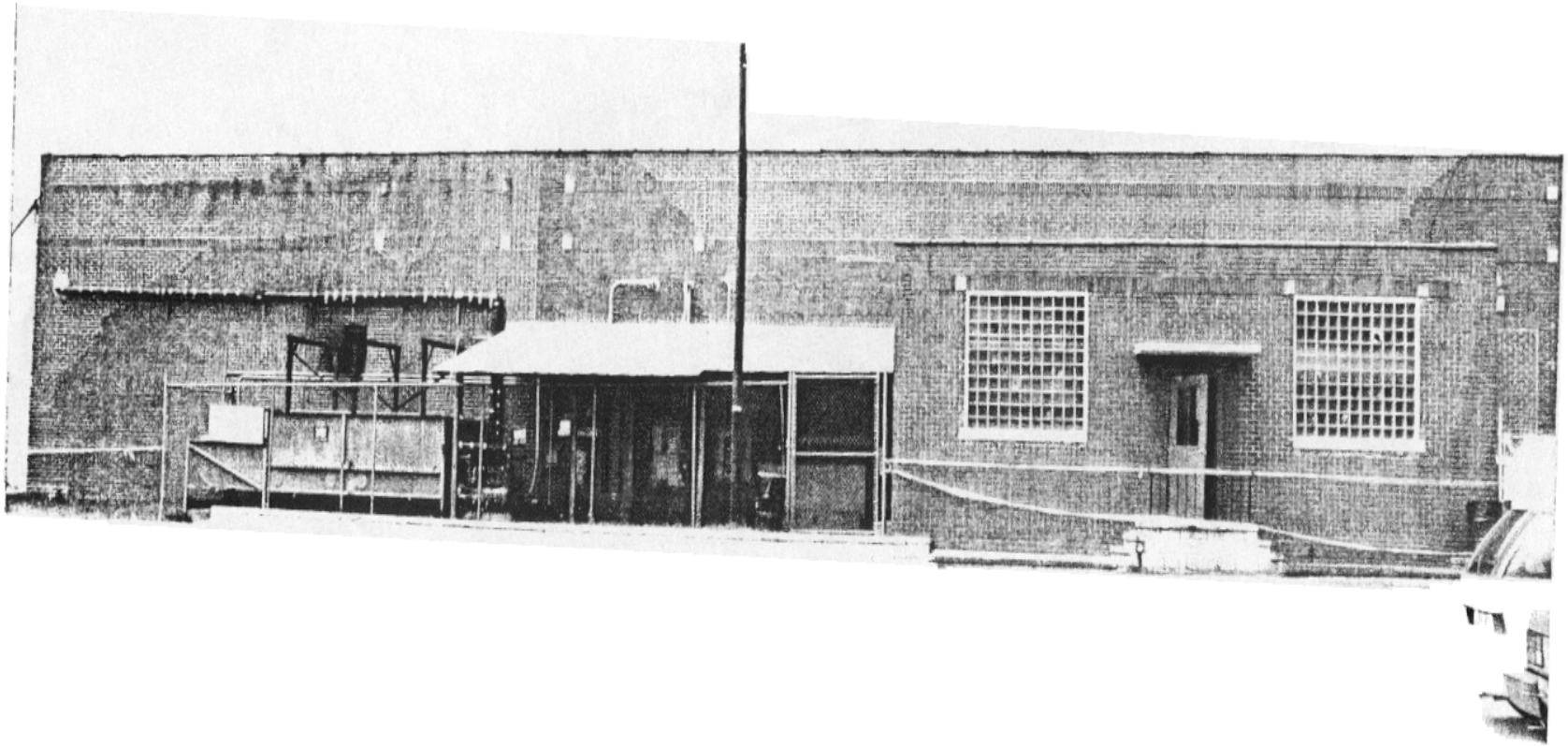


(Photo by Jack Yates)

The compactor area and one of the exit doors that was locked.

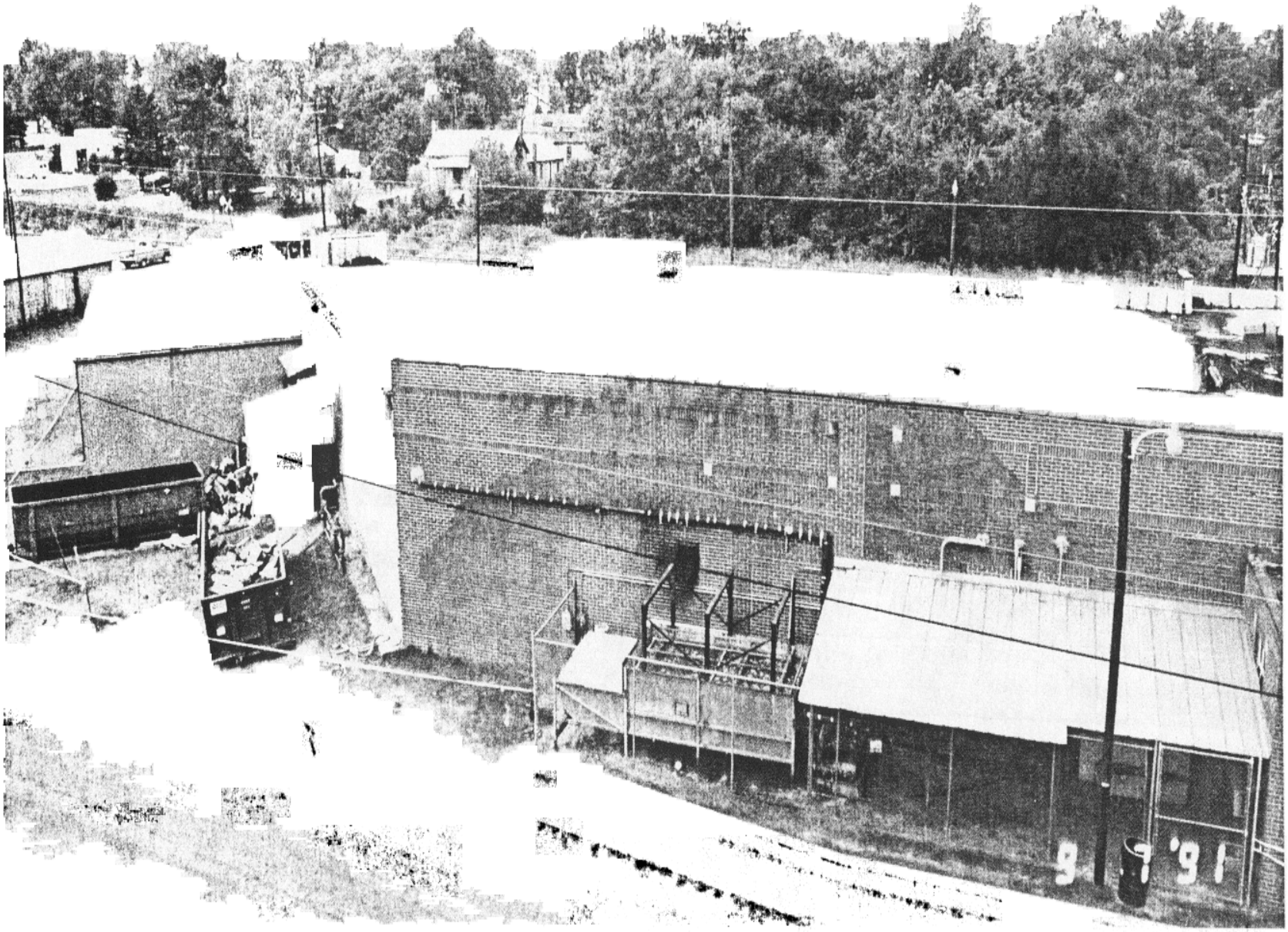
(Photo by Jack Yates)

The loading dock area and sealed doors next to the compactor. The pads around the doors are designed to form a seal when the trailer backs into this dock



(Photo by Jack Yates)

The front of the main building. The door just right of center is to the front office area.

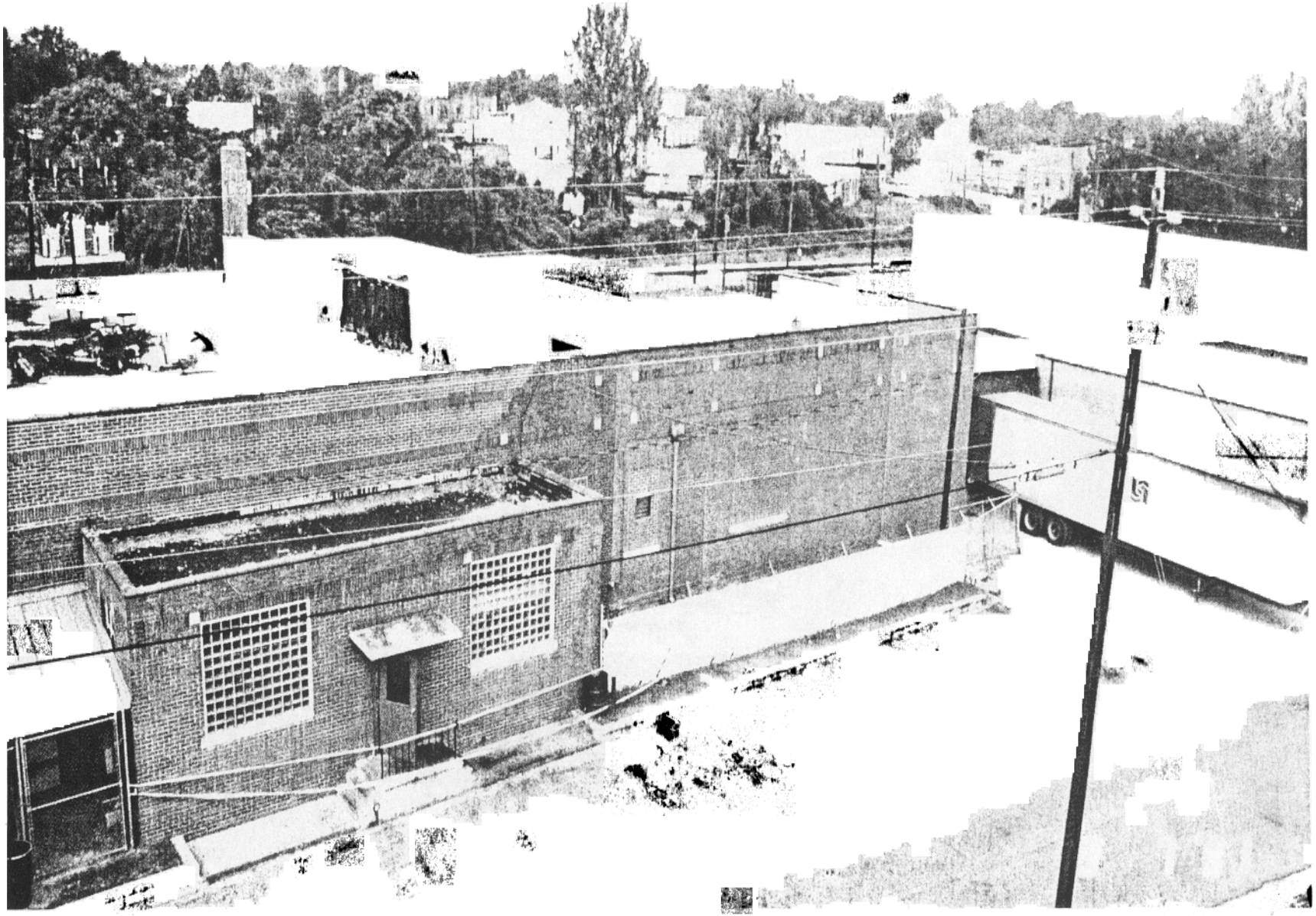


(Photo by Jack Yates)

A view from an aerial ladder from the east looking southwest. Some roof damage is visible at the extreme right.

(Photo by Jack Yates)

**Another view from the aerial ladder from the east looking west,
Shows the portion of the roof collapsed over the area of origin.**

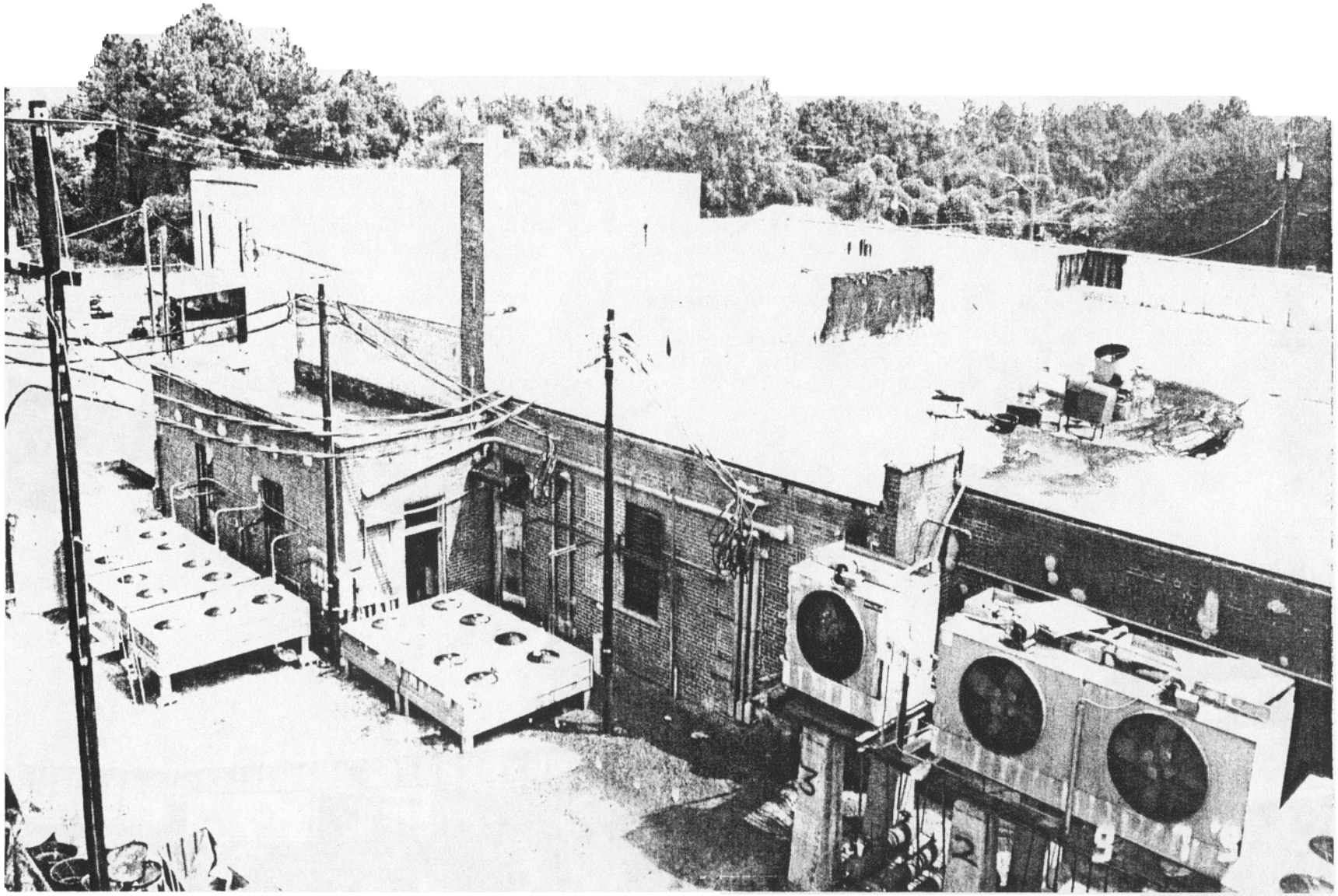


(Photo by Jack Yates)

Another view from the aerial ladder from the east looking northwest, shows the remainder of building area.

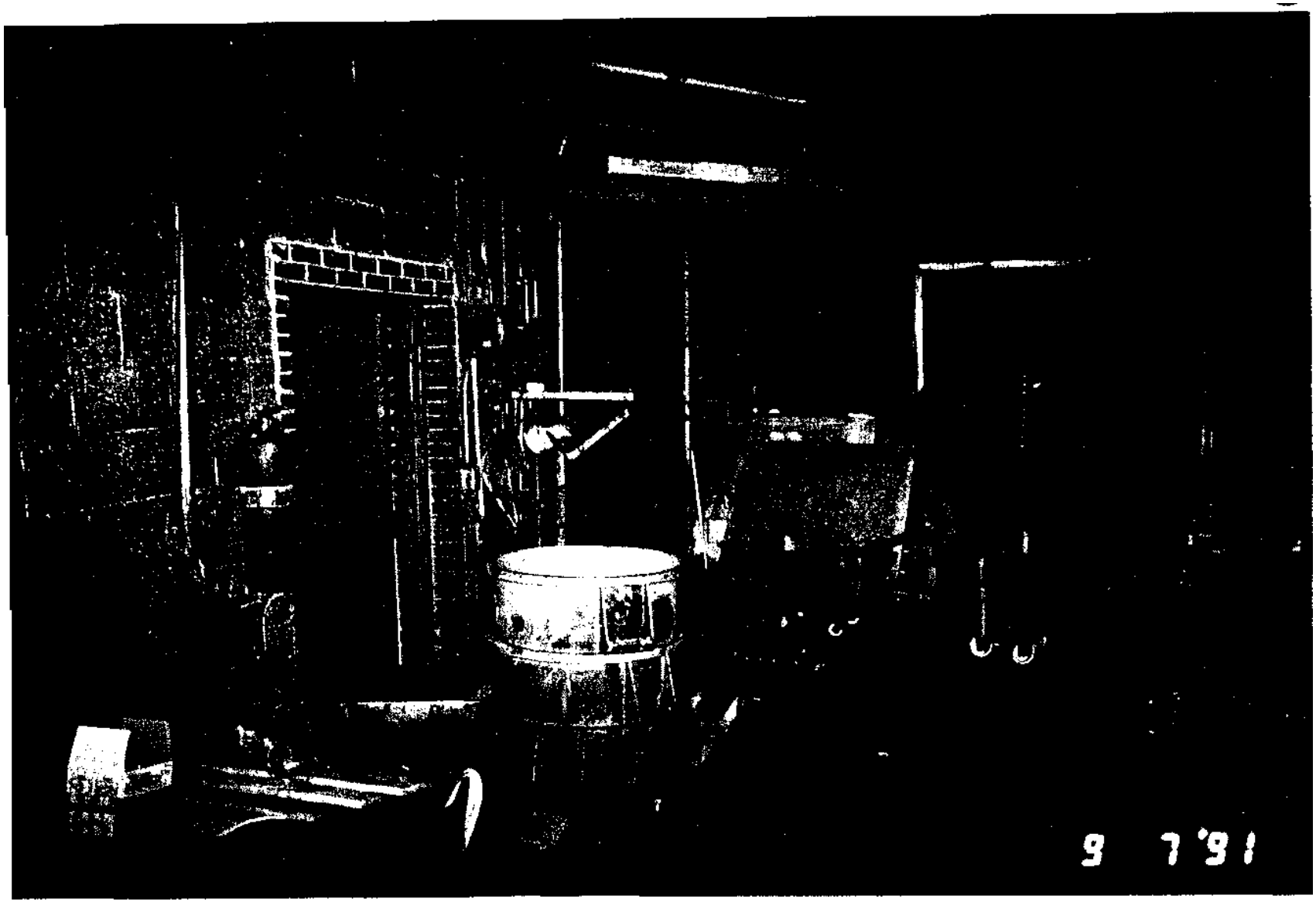
(Photo by Jack Yates)

A view from the aerial ladder from the west side of the building looking to the southeast. The break room roof is in the forefront.



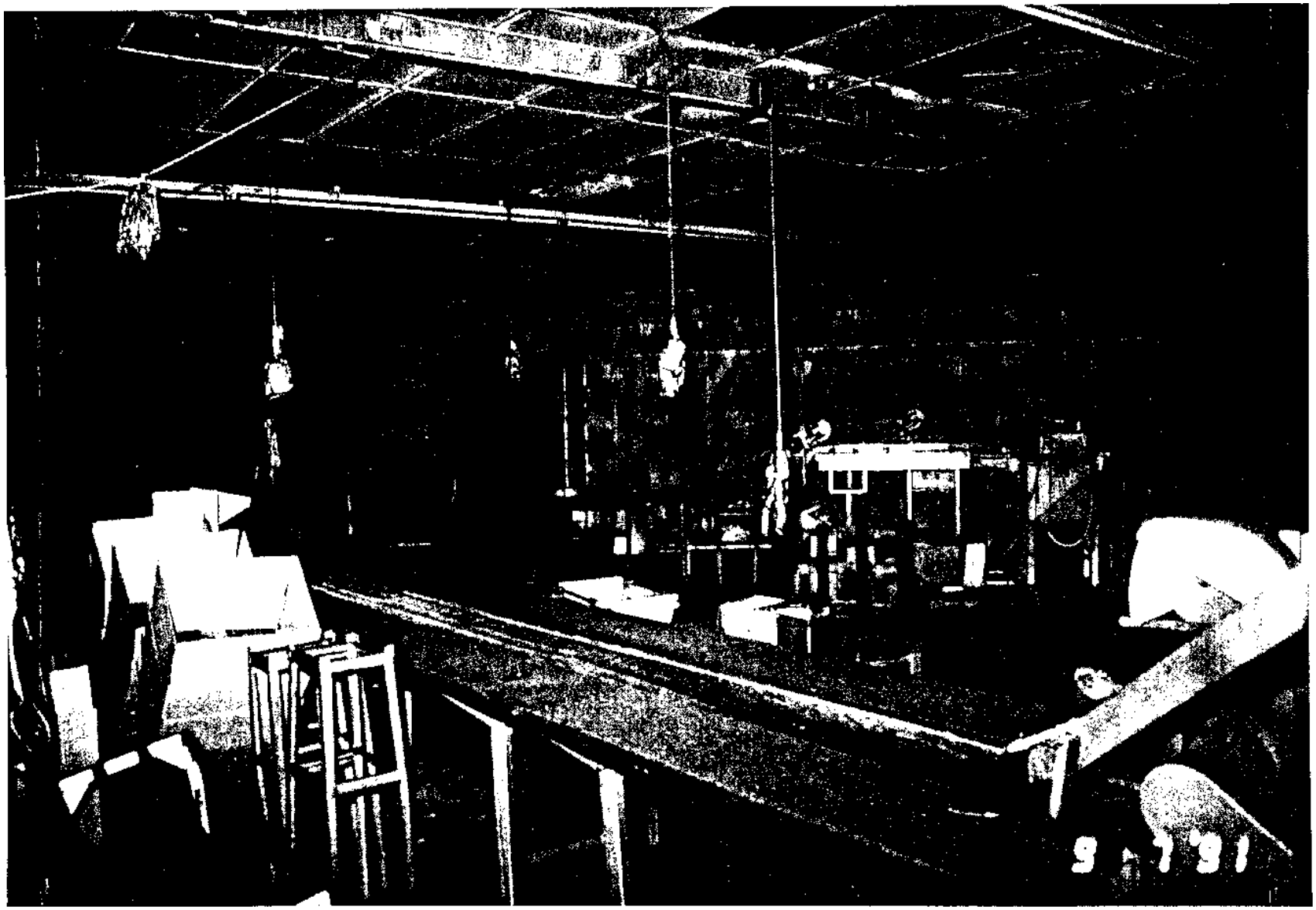
(Photo by Jack Yates)

A view from the aerial ladder from the west side looking to the northeast. The roof collapse can be seen on the right, refrigeration compressor equipment is seen on the ground in the lower left.



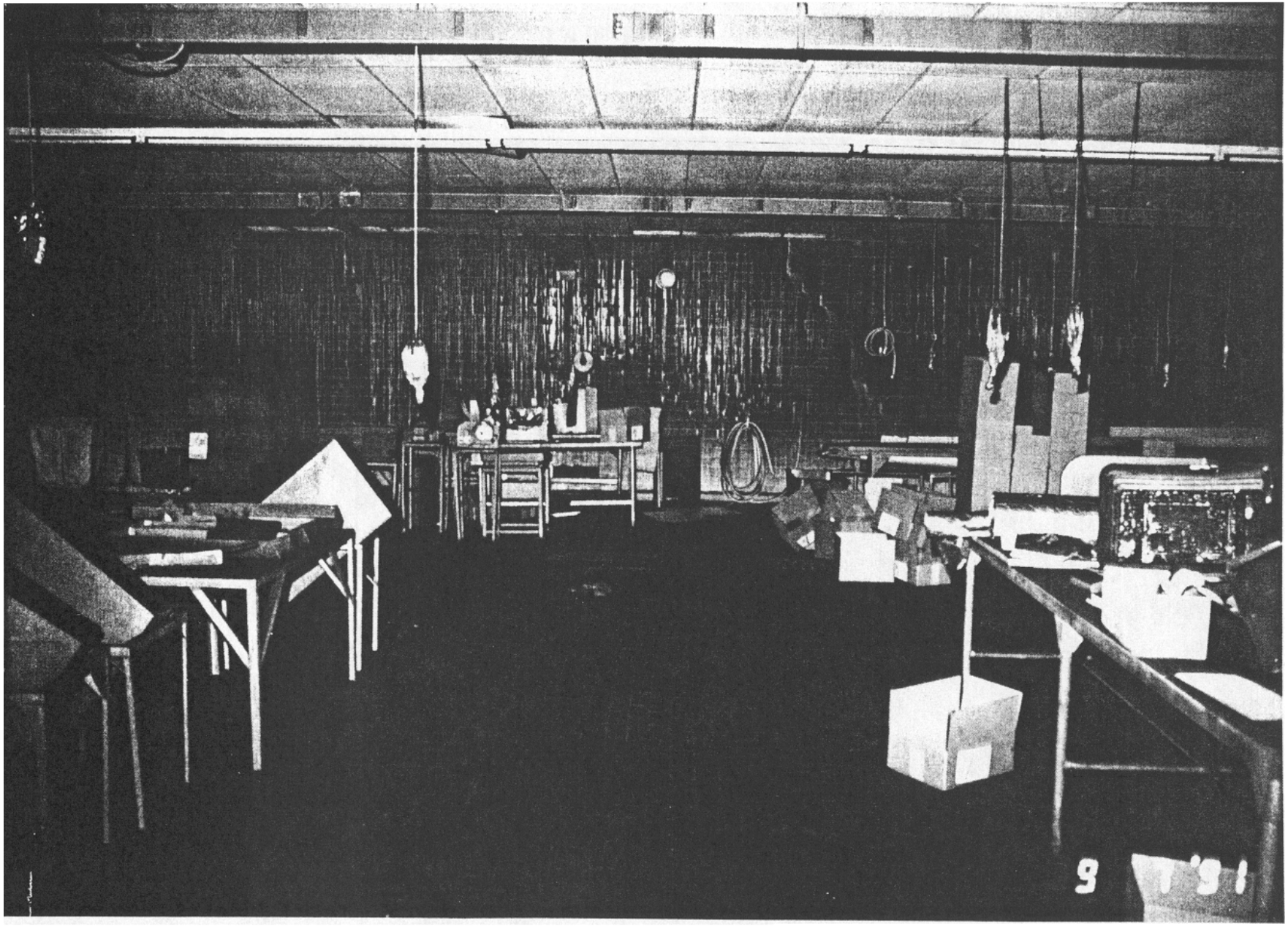
(Photo by Jack Yates)

The trash and loading dock area. It was into this compactor area that several people tried to escape only to find the door to the outside locked. Upon coming back out of this area, they went through the large doors at the right which ultimately led to the large walk-in cooler where the largest fatality count was found. View is from the east toward the west southwest.



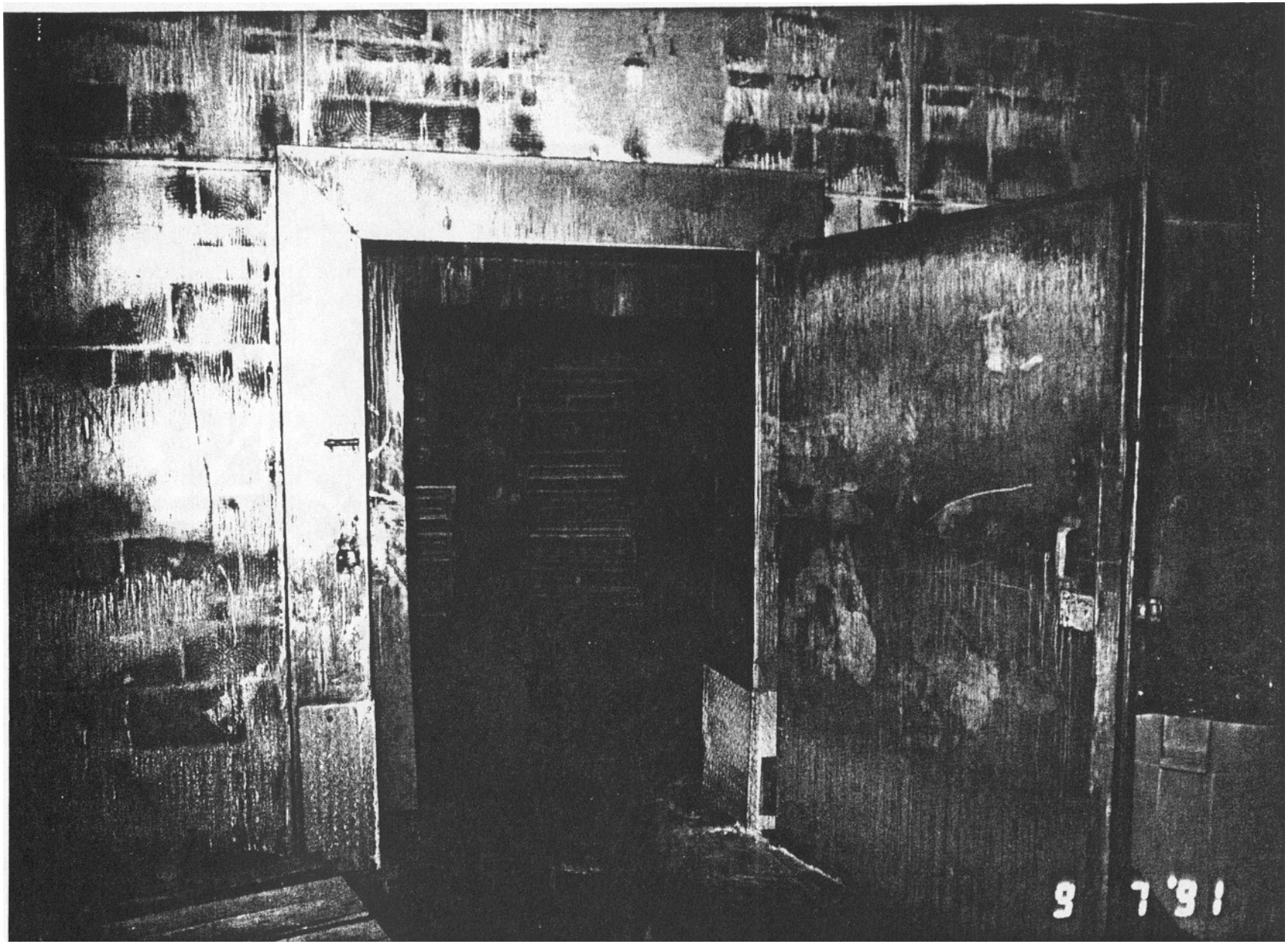
(Photo by Jack Yates)

View showing the trim room as seen from the west center looking to the southeast. This view is looking toward the door to the cooler where the highest fatality count was located.



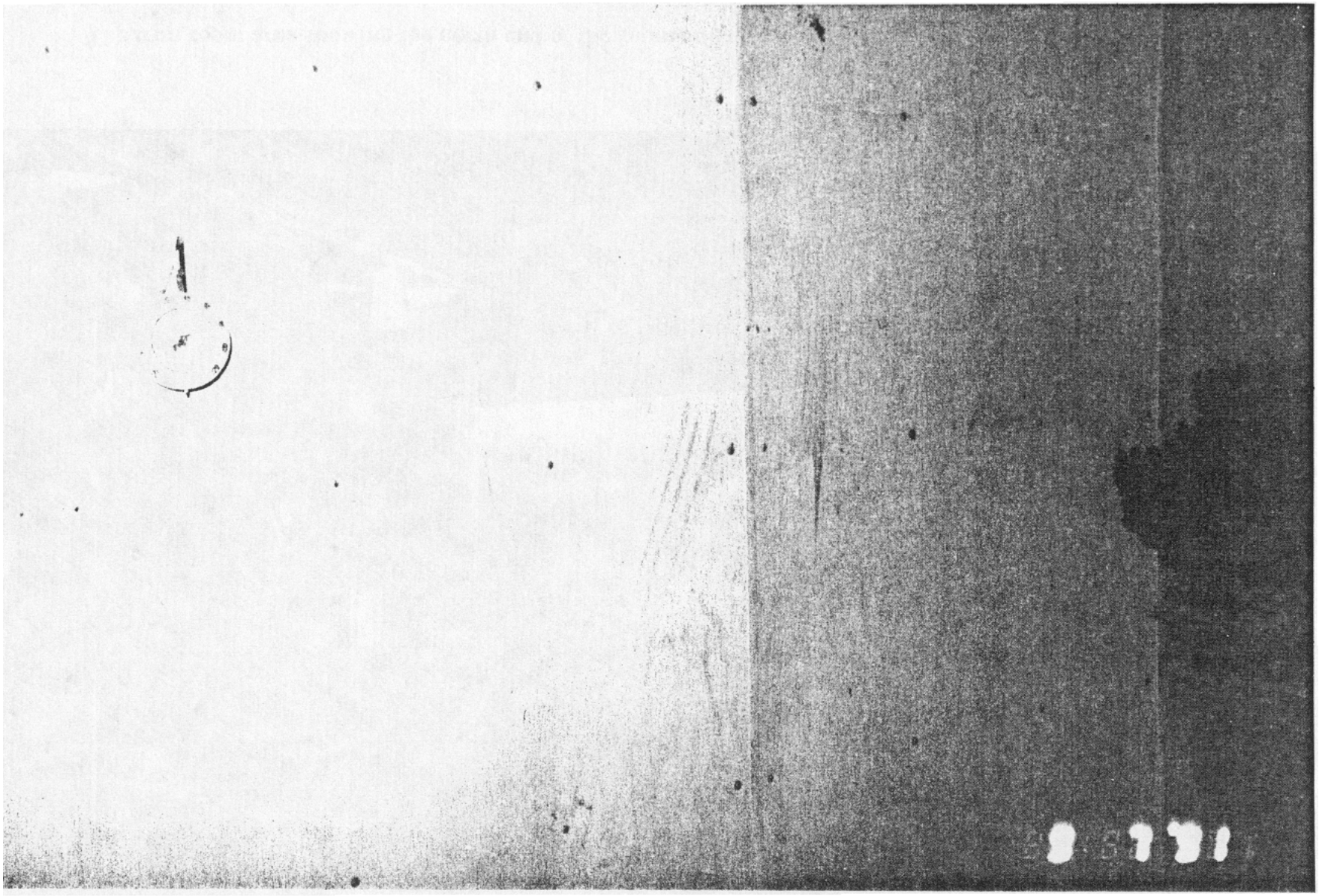
(Photo by Jack Yates

Inside the marinating and cutting room; no direct flame impingement actually entered into this area. View is from the east to the west.



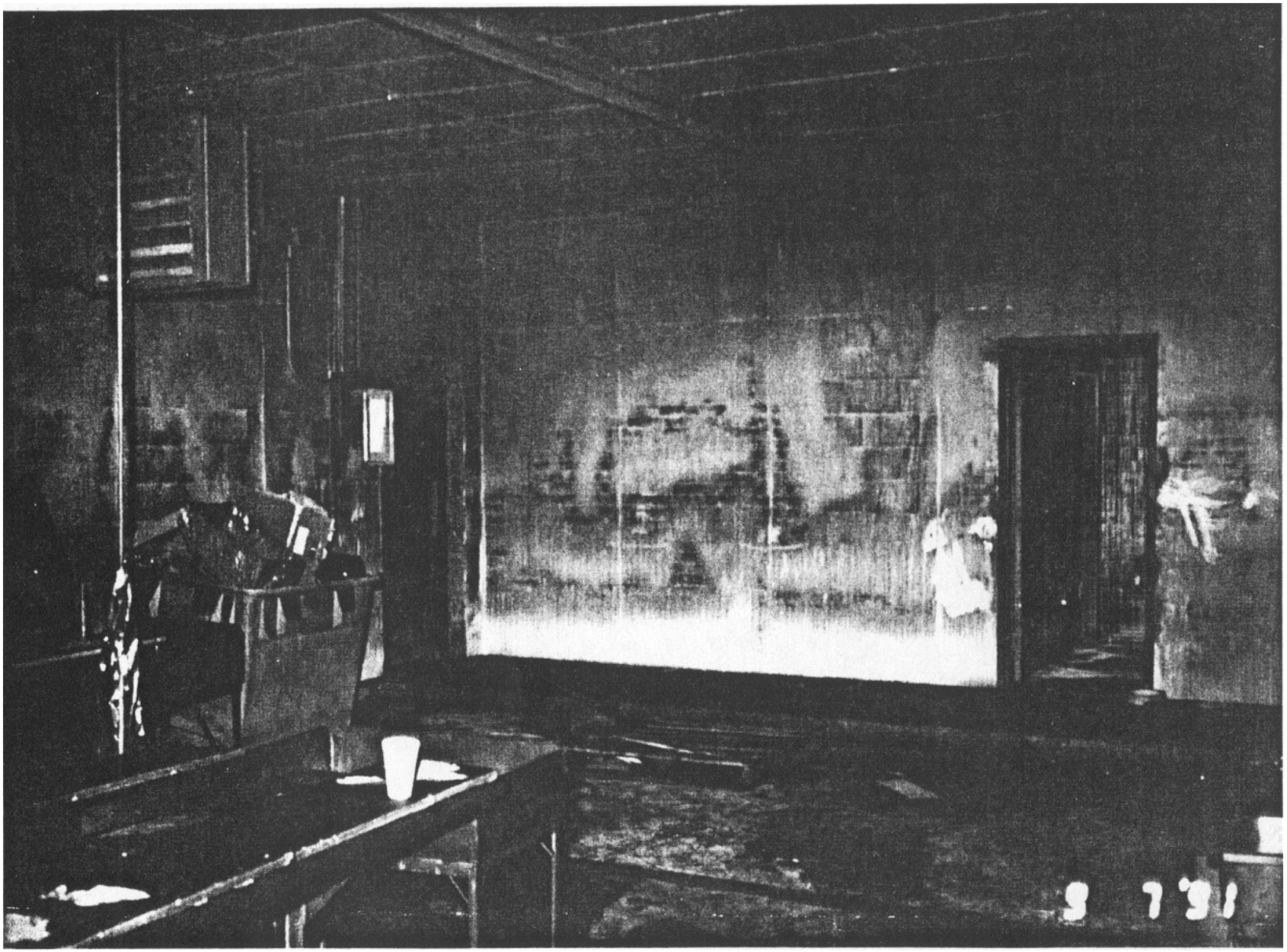
(Photo by Jack Yates)

The cooler door, which was at the south end of the building, where the highest fatality count was found.



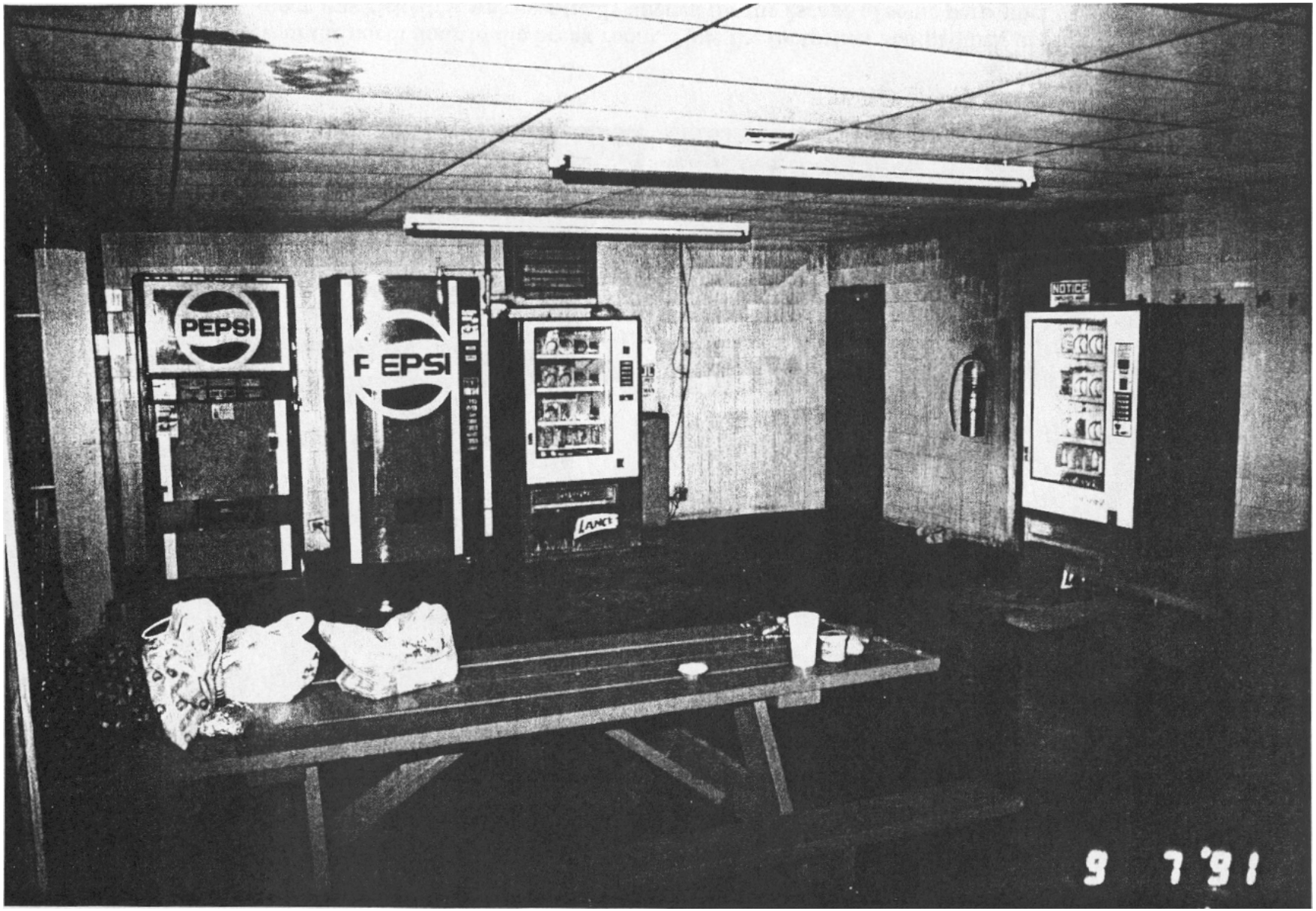
(Photo by Jack Yates)

The west wall in the west portion of the cooler. Numerous handprints were found where people were trying to find escape routes.



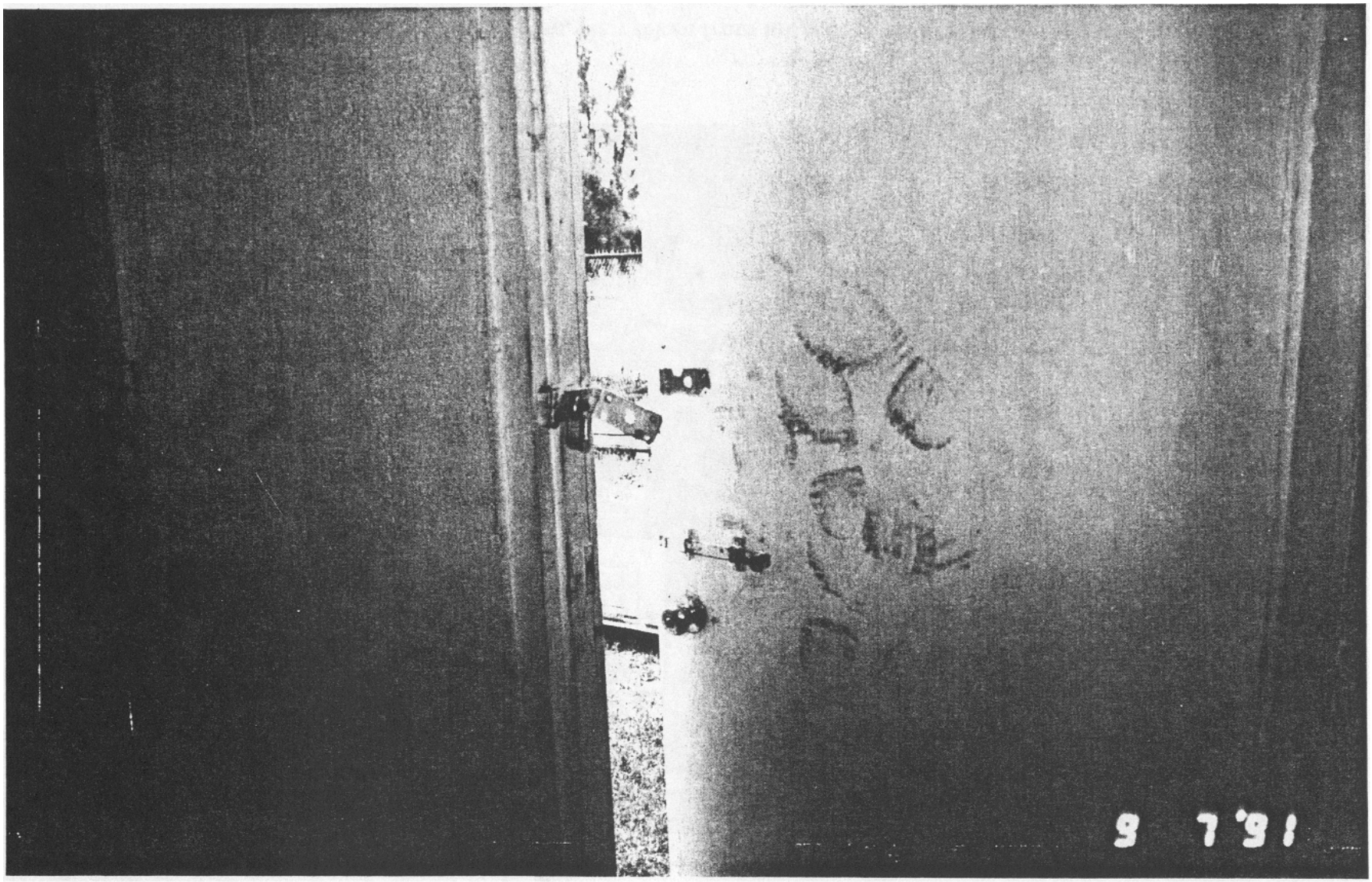
(Photo by Jack Yates)

The trim room area showing the north end of the room and also a door leading to the break room area.



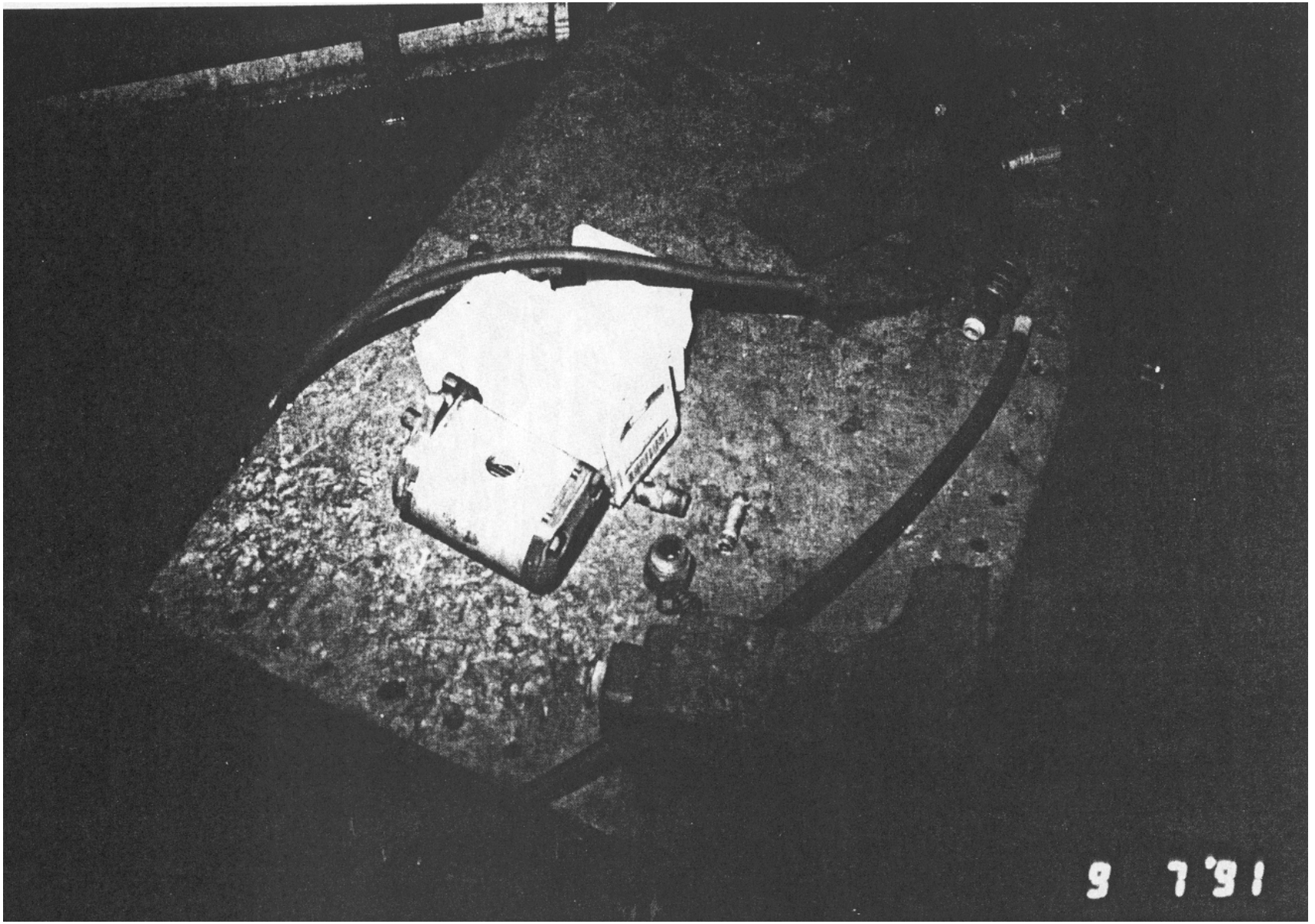
(Photo by Jack Yates)

The east half of the break room, view taken from the southwest toward the northeast.



(Photo by Jack Yates)

A close-up view of the north door to the break room. Note the footprints and padlock in place where the door was kicked; it was eventually opened for the escape of some personnel.

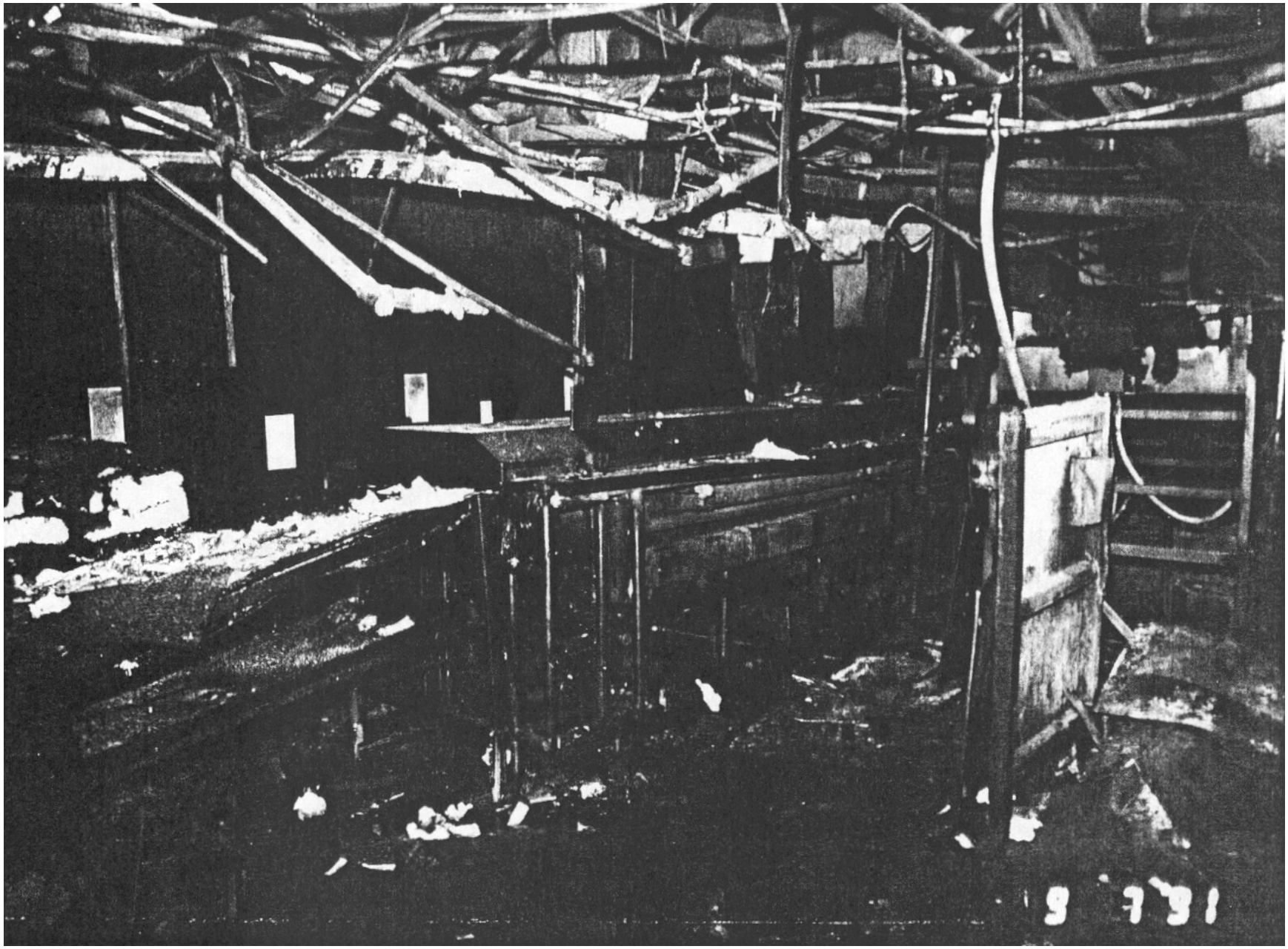


(Photo by Jack Yates)

The remains of the hydraulic line that had been cut by the maintenance worker for the repair process that took place just preceding the fire.

(Photo by Jack Yates)

The west side of the cooking vat. View taken from the north to the south.



(Photo by Jack Yates)

The area of origin viewed from the southeast to the northwest.

(Photo by Jack Yates)

Damage to the steel girders and roof supports over the area of origin.

Appendix D

Tyson Foods Safety Policy, Monthly Fire Inspection Checklist and Other Fire Safety Program Materials

TYSON FOODS

SAFETY POLICY

INCIPIENT FIRE FORCE

Description: Corporate Safety Policy relative to a Fire Force and Fire Protection within the Tyson organization.

Scope: This policy covers ALL Tyson facilities.

Individual Plant Requirements:

1. An Incipient Fire Force will be established at all Tyson facilities.
2. Emergency Action and Fire Prevention Plans will be prepared at each facility and copies submitted to Loss Control.
3. Exit drills will be conducted at least semi-annually or when Evacuation plans are revised.
4. Alarm systems will be installed per Section 1910.165 of OSHA.
5. The Fire Force will conduct quarterly training sessions.
6. Records will be kept as to training sessions, alarm tests, sprinkler tests, and fire hazard inventories.
7. All fires will be reported to Loss Control as soon as practicable and a follow-up written report made.
8. Fire extinguishers will be inspected monthly and records kept.
9. Each facility will obtain and install an adequate number of fire extinguishers and hose stations as required.
10. Monthly fire inspections will be conducted and copies of these inspections will be forwarded to Loss Control not later than the 30th of each month.

Approved: [signature] Date: 10-5-90

INTRODUCTION

As Tyson Foods continues to expand and change, fire protection becomes more complex and difficult. New processes and products bring new fire hazards. Processing equipment and facilities have become even larger and more expensive. Their loss has a greater impact on production and the bottom line. Greater values are concentrated in single buildings. Products are stored higher and higher in warehouses. More and more personnel are concentrated and exposed to greater hazards.

Fire detection and prevention equipment is hard pressed to keep pace with the new hazards. As a result, the risk of very large losses is increased--losses which can threaten the entire plant or event the entire business organization. Maintaining these risks within reasonable bounds is a major challenge to management.

Good fire protection doesn't just happen, it is the result of Corporate policies and related fire prevention programs. Good organization, with responsibilities clearly assigned and specific duties spelled out, will result in implementation of effective programs.

The two primary ways to manage fire risks are to prevent fires and to limit or control their size.

An effective program receives its driving force and continuing motivation from top management, but strong interest extending down through various levels of management and supervision to the individual employee is needed for the program to succeed.

The objectives of a satisfactory fire prevention and control program can be stated very simply:

1. *To plan and construct low hazard buildings, processes, and equipment.*

2. *To provide adequate fire control and suppression equipment where needed*

3. *To educate and train employees in loss prevention and proper action in emergencies.*

In planning new facilities decisions made during the planning stages largely determine the degree of fire risk the facility will present after it is built. The important considerations are in the following areas:

1. *Safety to life*

2. *Protection of property*

3. *Continuity of operations*

CUTTING & WELDING
PERMIT

Applies Only to Area Specified Below

Date _____

Building _____ Floor __

Nature of the job _____.

_____

The above location has been examined. The precautions checked below have been taken to prevent fire. Permission is granted for this work.

Permit expires: _____
Date Time

Signed _____
Fire Safety Supervisor

Time started _____ Time finished _____

FINAL CHECK-UP

Work area and all adjacent areas to which sparks and heat might have spread (such as floors above and below and on opposite side of walls) were inspected for at least 30 minutes after the work was completed and were found fire safe.

Signed _____
After signing, return permit to person who issued it.

PRECAUTIONS

The Department Supervisor or his appointee should inspect the proposed work area and check precautions taken to prevent fire.

- ☐ Sprinklers in service.
- ☐ Cutting and welding equipment in good repair.

PRECAUTIONS WITHIN 35 FEET OF WORK

- ☐ Floors swept clean of combustibles.
- ☐ Combustible floors wet down, covered with damp sand or metal or fireproof sheets.
- ☐ No combustible materials or flammable liquids.
- ☐ Combustibles and flammable liquids protected with fireproof tarpaulins or metal shields.
- ☐ All wall and floor openings covered.
- ☐ Fireproof tarpaulins suspended beneath work to collect sparks.

WORK ON WALLS OR CEILINGS

- ☐ Construction noncombustible and without combustible covering or insulation.
- ☐ Combustibles moved away from opposite side.

WORK ON ENCLOSED EQUIPMENT

(Tanks, containers, ducts, dust collectors, etc.)

- ☐ Equipment cleaned of all combustibles.
- ☐ Containers purged of flammable vapors.
- ☐ Inlets & outlets locked out & plugged.

FIRE WATCH

- ☐ To be provided during and for 30 minutes after operation, re-check after 2 hours.
- ☐ Supplied with extinguishers or small hose.
- ☐ Trained in use of equipment and in souunding alarm.

Signed _____

TYSON FOODS, INC.

MONTHLY FIRE INSPECTION CHECKLIST

Facility_____ Date _____

1. Fire Extinguishers
   a. Was each Unit examined? _____
   b. Were all Refills completed? _____
   c. Were Units easily Accessible? _____
   d. Condition of Units: _____

2. Smoking Regulations
   a. List "Smoking" Areas _____
   b. Non - Smoking Areas Posted? _____
   c. Regulations Enforced? _____

3. Volatile and Combustible Materials
   a. Were these Materials Needed where found? _____
   b. Are Materials Safely Stored and Handled? _____
   c. Are Safety Containers used and in good condition? _____
   d. Any stored under Stairwells? _____
   e. Any Excessive Amounts? _____

4. Fire Drills

   a. Date Held. _____

   b. Was Drill Expected? _____

   c. Number of Persons in Drill. _____

   d. Was signal clear to all persons? _____

COMMENTS: _____

_____

5. Hose Stations

   a. Was a Hose attached to each outlet? _____

   b. Was a Nozzle attached to each Hose?

   c. Is Hose Properly Racked? _____

   d. What Condition are the hoses in? _____

   e. Date Tested. _____

6. Sprinkler Systems

   a. Valves Open? _____

   b. Stand Pipes Inspected? _____

   c. Sprinkler Heads Un-obstructed? _____

   d. Sprinkler Heads Painted? _____

   e. Sprinkler Heads or Piping Corroded? _____

   f. Sprinkler Heads loaded with Dirt? _____

   g. Sprinklers obstructed by New Partitions?

   h. New Section requiring Sprinklers? _____

   i. Flow Test Conducted?

_____ _____

water pressure pressure w/ drain valve open

7. City Water:

   a. Is City Water in Commission? _____

   b. Gage Pressure. _____

8. Steam Piping

   a. Are all pipes and coils one inch clear of wood work and supported safely? _____

   b. Ducting of Exhaust in safe condition? _____

9. Wiring and Electrical Equipment:

   a. Are all panel boards, switch and fuse cabinets clean? _____

   b. Are all outlet box covers in place? _____

   c. Are all fuse and switch box covers in place? _____

   d. Is there any temporary wiring? _____

   If so comment on Location: _____

10. Housekeeping

   a. List Locations where housekeeping was not satisfactory:

   _____

   _____

   _____

   b. Will these be cleaned up? _____

11. Detection Systems

   a. Heat Detectors in operable condition? _____

   b. Smoke Alarms in operable condition?

Manual Fire Alarms

a. Are stations un-obstructed? _____

b. Are stations operational? _____

Vent Hood Systems

a. Semi-Annual Inspections completed? _____

b. Are they clear of grease accumulation? _____

Exits

a. Are there an ample number? _____

b. Continuously lighted and/or visible? _____

c. Are doors opened easily? _____

d. Are doors unlocked? _____

e. Are doors un-obstructed? _____

f. Has emergency lighting been tested? _____

g. Are there at least two Remote Exits? _____

Building Exterior

a. Are stated Fire Lanes un-obstructed? _____

b. Are Fire Hydrants easily accessible? _____

c. Are sprinkler valves in open position? _____

d. Are Fire Exits blocked? _____

Inspections:

a. Are end-of-work-day Inspections being done? _____

Fire Brigade Training

a. Are monthly training sessions being conducted? _____

18. Construction Areas

a. Check for Fire Hazards. _____

b. Check for Block Exits of Fire Lanes. _____

Comments: _____

_____

_____

I, HEREBY, CERTIFY THAT I HAVE INSPECTED THE ABOVE LISTED ITEMS AS SHOWN BY THE COMMENTS THERON.

(*TO BE COMPLETED BY THE 20TH OF THE EACH MONTH)

_____ _____

Fire Brigade Chief Date

_____ _____

Facility Manager Date

Tyson Fire Safety
(Fry Department)

The following is a list of controls in place at virtually all locations with fry operations. Hydraulic line interlock valve installation should be completed company-wide within 2 weeks. Supervisor training on fire extinguisher operation is being updated -

1 Fryer Suppression System -
200 lb. Co2 Automatic Extinguishing System, 3 minute discharge.

2. Fryer Gas-line Interlock - Electronically shuts off natural gas supply in the event of a fire.

3. Fryer Hydraulic line interlock -
Shuts off hydraulic fluid flow in the event of a ruptured line.
(These are currently being installed).

4. Quarterly Suppression System Maintenance.

5. Available, strategically located portable fire extinguishers.

6. Supervisors Trained to use Extingushers.

7. Automatic Fire Alarm Systems - * not installed in all locations.

8. Fire Retardant Room Construction.

9. Exits located for quick access.

10. Exit Instructions Communicated and Posted.

11. Exits maintained clear, unlocked and adequately marked.

12. Plant Fire Force Team (Fire Brigade) -on site- Regular Training and monthly meetings.

13. Emergency Response Equipment (Respirators, Chemical Suits, etc.) on site.

14. Written "Crisis Management" Plan - on site.

15. Routine Inspections - In house.

16. Local Fire Department Inspection/Consultation.

FACILITY

FACILITY MANAGER

TYSON FOODS INC.

CO2 SYSTEM INSPECTION CHECKLIST

(To be completed and sent to Loss Control by the 30th of each month)

DATE	SYSTEM NUMBER	CYLINDER HOOKUPS	PANEL ALARM	TROUBLE	INITIALS	COMMENTS

MODULE 2: MANAGING RISK

TERMINAL OBJECTIVE

The students will be able to identify prevention activities that can be implemented to reduce risk to life and property within their respective communities.

ENABLING OBJECTIVES

The students will:

1. *Analyze the 3-E's and develop definitions and examples of each.*

2. *Analyze and report how effectively the 3-E's are being used by their local jurisdictions.*

3. *Analyze a given fire scenario and identify prevention activities that could have been implemented to prevent and/or control the loss of life and property.*

4. *Review a similar fire scenario where the 3-E's were applied prior to the fire.*

5. *Review the purpose and benefits of building coalitions to accomplish fire prevention goals.*

HISTORY OF THE 3-E's

The 3-E's (education, enforcement, and engineering) were first recommended for preventing loss of life during the 1947 President's Conference on Fire Prevention. The report and its significance are detailed in the first course in this series, *Fire Prevention for First Responders and Small Departments.* The conference identified and called nationwide attention to the staggering and rising waste as a result of fire. The appalling loss in 1946 was estimated at 10,000 victims annually and over $500 million in property. While the loss of life today is much lower, property loss is still staggering--estimated over $10 billion.

The conferees focused on preventing, rather than suppressing, fires, though suppression efforts always would be needed. They recommended education, engineering, and enforcement as the most effective methods for reducing loss. They advocated public fire prevention in schools at all levels, including colleges, and the establishment of State and regional fire training colleges to train and educate the Nation's fire personnel.

They advocated that a properly built environment could affect fire incidents and the spread of fire. Their recommendation was to increase research into safer designs and to introduce fire prevention training into the design community, especially in engineering and architectural colleges.

Lastly, they recommended better trained fire inspectors and better enforcement of fire codes. While much progress has been made in enforcement today, when major fires resulting in multiple loss of life and extensive property damage occur, the lack of compliance with minimal fire codes is exasperating.

Education as a Behavior Intervention

Public fire prevention education is one of the most widely used intervention strategies, probably because it is the easiest method to implement. It is difficult to control the learning environment because effects may not be seen for years. For this reason, strategies need to be targeted so results can be evaluated. It has limited success when used independently of other intervention strategies or when it is not evaluated over a period of time. It requires a long-term commitment because periodic reinforcement is necessary to make the desired behavior a habit.

An effective education intervention program usually has the following key elements:

- strategic planning;
- coalitions at all levels;
- delivery strategies;
- evaluation of results;
- adequate research;
- appropriate materials; and
- political action.

Successful fire and injury prevention programs usually have the following factors in common:

- Fire chiefs allow their public educators room to be innovative, take risks, try new ideas, and seek outside resources.

- They have champions or "spark plugs."

- They carefully target a specific fire safety or injury prevention problem.

- They tailor the program to the needs of their intended audience.

- They form coalitions and bring in powerful allies to provide assistance.

- They use materials that are clear and are available in quantity.

- Messages are repeated again and again.

- Programs often are refined by pretesting a small section of the target population.

- Programs are adaptable and flexible as problems change.

- Educators feel their role is as important as that of the response personnel.

- Educators are rewarded for their efforts.

- There is a feeling of energy and the ability to harness the energy of others.

- Personnel are trained to be competent.

- There is a personal mission and vision.

Enforcement as an Intervention Tool

Enforcement is carried out mostly at the State and/or local level in a number of ways:

- review of plans for new construction;
- onsite construction inspections;
- fire and life safety codes;
- periodic maintenance inspections;
- control of hazardous materials; and
- retrofitting high-risk occupancies with automatic fire sprinkler systems.

The characteristics of effective enforcement intervention programs.

- They are used most effectively in larger departments and are often neglected in smaller communities because of lack of trained personnel or political opposition to code enforcement.

- It is often alien to fire personnel who view themselves as responders, not inspectors.

- Enforcement needs to be consistent, with a long-term commitment.

- It may be the only viable intervention for a particular problem.

- Often it is highly political and opposed by special interests.

The weakness of depending solely on enforcement intervention strategies is that it often results in political backlash. Without education efforts, the public may not understand the purpose of codes. The key elements of an effective strategy are

- political and policymaker support;
- a good recordkeeping system;
- consistent application of requirements;
- partnership with building officials;
- competent personnel; and
- consistent evaluation of results.

ENGINEERING AS AN EFFECTIVE PREVENTION STRATEGY

Typical characteristics of effective engineering as an intervention tool.

- It is built into product, equipment, and the environment.
- It is a most effective control measure because it does not require people to do something to be safe.
- Many engineering improvements are based on experience, such as causal factors of major disasters.
- Good engineering depends on good historical data, research, and experience to make improvements.
- It relies heavily on enforcement to be effective.
- It usually is based on research accomplished by national programs and associations outside of the fire department.

Effective engineering programs usually have the following characteristics:

- They enjoy strong political and policymaker support.
- They are well funded.
- They are in partnership with building officials.
- They employ competent personnel.
- Their results are evaluated consistently.

PREVENTION

Preventing the fire is the ultimate goal of fire safety officials. There are three means by which this may be accomplished:

1. Change the heat source.
2. Change the fuel source.
3. Change the behavior.

By limiting any one of these factors, it is possible to prevent a serious, even fatal, fire.

Smoking Materials

Fires caused by smoking materials are the leading cause of fire deaths in the Nation accounting for 27 percent of the total deaths.

- Engineering: Design an ignition-resistant cigarette.
- Education: Teach smokers to be more careful.
- Enforcement: Strictly enforce no-smoking regulations.

Upholstered Furniture

Approximately 18 percent of fire deaths begin with ignition of upholstered furniture. Ignition can occur in a number of ways including from an open flame source, such as a cigarette, or radiant heat from nearby equipment.

- Engineering: Make upholstered furniture resistant to open flames.
- Education: Teach the public to keep furniture away from open flames and potential heat sources.
- Enforcement: Make the Upholstered Furniture Action Council recommendations regulations.

Arson

Arson is the second leading behavior or heat source cause of fire deaths, accounting for one-sixth of the total. Approximately half of all people arrested for arson are under the age of 18.

- Engineering: Install better security devices.
- Education: Counsel juvenile firesetters.
- Enforcement: Investigate all fires of unknown cause to identify arson better.

Preventing fires surely requires a united effort among all levels of government to be effective. While, theoretically, smaller local governments can educate the public, adopt and enforce codes, and engineer safe structures, in reality, without State and national leadership, they often lack the resources and political clout to have a significant impact. As an example, the Occupational Safety and Health Act (OSHA), as much as it has imposed, has improved worker safety, including fire, as much as any other program. Only a program with the clout of the Federal government behind it could have such an impact in such a short time.

Many Federal agencies contribute to fire and life safety:

- **The United States Fire Administration (USFA)**
  http://www.usfa.fema.gov/

  America's fire death rate is one of the highest per capita in the industrialized world. Fire kills over 4,000 and injures more than 23,000 people each year. Firefighters pay a high price for this terrible fire record as well; approximately 100 firefighters die in the line of duty each year. Direct property losses due to fire exceed $8.5 billion a year. Most of these deaths and losses can be prevented!

  In fact, the U.S. fire losses today represent a dramatic improvement from more than 20 years ago. In 1971, this Nation lost more than 12,000 citizens and 250 firefighters to fire. Acting to halt these tragic losses, Congress passed P.L. 93-498, the Federal Fire Prevention and Control Act, in 1974; it established the USFA and its National Fire Academy (NFA). Since that time, through data collection, public education, research and training efforts, USFA has helped reduce fire deaths by at least half--making our communities and our citizens safer.

  As an entity of the Federal Emergency Management Agency (FEMA), the mission of the USFA is to reduce life and economic losses due to fire and related emergencies, through leadership, advocacy, coordination, and support. We serve the Nation independently, in coordination with other Federal agencies, and in partnership with fire protection and emergency service communities. With a commitment to excellence, we provide public education, training, technology, and data initiatives.

- **Building and Fire Research Laboratory (BFRL)/National Institute of Standards & Technology (NIST)**
  http://www.bfrl.nist.gov

  BFRL is the national laboratory dedicated to enhancing the competitiveness of U.S. industry and public safety performance prediction methods, measurement technologies, and technical advances needed to assure the life cycle quality and economy of constructed facilities. Its products are used by those who own, design, construct, supply, and provide for the safety or environmental quality of constructed facilities. BFRL staff assist fire department personnel on a daily basis with a broad range of products and services plus advanced technology applications important to fire protection activities.

- **Bureau of Alcohol, Tobacco and Firearms (ATF)**
  http://www.atf.treas.gov

  A law-enforcement organization within the U.S. Department of the Treasury with unique responsibilities dedicated to reducing violent crime, collecting revenue, and protecting the public. ATF enforces the Federal laws and regulations relating to alcohol, tobacco, firearms, explosives, and arson. ATF personnel routinely assist fire departments of all sizes with major fire investigations and offer technical support services.

- **Consumer Product Safety Commission (CPSC)**
  http://www.cpsc.gov

  Helps keep American families safe by reducing the risk of injury or death from consumer products. Specific to fire, CPSC offers many initiatives toward making the country safer from fire. Initiatives range from unsafe products recalls, to fire safety advocacy for childproof lighters, to electrical safety, cooking applications, etc. In a typical year, half the product recalls deal with fire safety issues.

Many national organization contribute to fire safety:

- **Alisa Ann Ruch Burn Foundation**
  http://www.aarbf.org

  A nonprofit organization dedicated to burn prevention and survivor assistance.

- **American Burn Association**
  http://www.ameriburn.org/

  Information and interactive communication on burn care and related research, teaching, rehabilitation, and prevention issues.

- **American Red Cross**
  http://www.redcross.org

  Provides relief to victims of disasters and helps people prevent, prepare for, and respond to emergencies.

- **National Fire Protection Association (NFPA)**
  http://www.nfpa.org

  Nonprofit organization which produces the National Fire Codes, consisting of some 275 codes and standards covering all areas of fire safety and used in nearly every country in the world.

Local and State agencies and organizations provide a variety of designs for implementing the 3-E's, including:

- fire prevention materials and presentations;
- standards, codes, and regulations;
- inspections and plans review;
- grants and technical assistance;
- investigations and prosecution;
- training and education (colleges and universities); and
- data and information.

Additionally many private-sector groups offer many fire protection services. Ranging from building code organizations, equipment manufacturing, industrial, and insurance companies, small communities have many supporters who have much to offer.

Activity 2.1

Prevention Activities: Chicken Processing Plant Scenario Hamlet, North Carolina (Imperial Foods)

Purpose

To analyze the Imperial Foods fire to identify strategies using the 3-E's that might have prevented the fire or reduced the negative impacts.

Directions

1. Your instructor will divide the class into small groups. Each small group will complete the following:

   a. Select a group leader to lead the activities and keep the group on track.

   b. Select a group recorder to record the work of the group on an easel pad for presentation to the full class.

   c. Select a group reporter to make a brief presentation to the full class, using the easel pad notes prepared during the exercise.

2. Take 10 minutes individually to review the Chicken Processing Plant fire and the risks developed in Activity 1.1.

3. Take 20 minutes to brainstorm a list of innovative programs, using the 3-E's, that might have prevented or mitigated this tragedy. Group the factors into categories of the 3-E's. Record your answers on the easel pad and individually on the worksheet.

4. Be prepared to present your list of programs to the full class when requested.

Activity 2.1 (cont'd)

Worksheet

Individually record the results of your group's discussions and deliberation into the following three categories:

Education:

Enforcement:

Engineering:

Activity 2.2

Results: Chicken Processing Plant Scenario
North Little Rock, Arkansas
(Tyson Foods)

Purpose

To analyze the Imperial Foods Processing Plant fire and the Tyson Foods Chicken Processing Plant fire to identify how the 3-E's were used in the Tyson fire to avoid a major disaster.

Directions

1. Your instructor will divide the class into small groups. Each small group will complete the following:

   a. Select a group leader to lead the activities and keep the group on track.

   b. Select a group recorder to record the work of the group on an easel pad for presentation to the full class.

   c. Select a group reporter to make a brief presentation to the full class, using the easel pad notes prepared during the exercise.

2. Take 10 minutes individually to review the chicken processing plant fires, including the Tyson scenario.

3. Take 20 minutes to brainstorm how the 3-E's were used in the Tyson fire to prevent a disaster. Group the factors into categories relevant to the 3-E's. Record your answers on the easel pad and individually on the worksheet.

4. Be prepared to present your work to the full class when requested.

Activity 2.2 (cont'd)

Worksheet

Individually record the results of your group's discussions and deliberation into the following three categories:

Education:

Enforcement:

Engineering:

MODULE 3: PLANNING FOR CHANGE

TERMINAL OBJECTIVE

The students will be able to develop elements of a plan to champion change in the fire department culture to promote fire prevention.

ENABLING OBJECTIVES

The students will:

1. *Define change.*
2. *Define prevention changes that need to be made in their department.*
3. *Identify conditions under which organizational change is likely to occur.*
4. *Explain factors that lead people to resist organizational change, and tactics that may be used to overcome them.*
5. *Identify and describe the steps in a change process.*
6. *Describe how fire prevention officers can develop a receptive attitude toward change in their department.*
7. *Define organizational culture.*
8. *Describe how organizational culture affects individual and organizational effectiveness in prevention.*
9. *Develop an action plan for implementing the identified changes.*

INTRODUCTION

Fire injuries and deaths are not "accidents." Thinking of them as accidents implies that they happen by chance and cannot be prevented. Most fire injuries and deaths are predictable and can be prevented. We are asking you, through this course, to become advocates for change and to commit to making a difference in your community. A large part of your role as a "preventioneer" is to understand what change is, how you can prepare your organization for change, how you work toward making prevention part of the organizational way of life, how to develop change management skills, and how to become motivators.

What is Change?

Change is making something different. It occurs continually and, in most cases, it is not a choice. Because it is not optional, we must learn to plan for change and manage it effectively. If people view change as beneficial to them, they will be motivated to make change occur. It is sometimes painful, disruptive, and it takes time to implement. It will not solve all previous and present organizational problems. As change occurs, people have to let go of "how it was" and move through a period of doubt and uncertainty.

WHAT DO WE WANT TO CHANGE?

Change is based upon a needs analysis. Identify existing behavior patterns of individual, group, organizational, and community behavior that you feel must be altered in order to make your community safer.

In Module 1, *Identifying Community Risks*, you learned to identify potential risks from fire within your community as well as suppression and prevention changes that need to occur. After you have identified community risks, you need to develop a program of planned change to interrupt the existing behavior patterns and develop new patterns.

In the past, the criteria for success in prevention have been based on the number of programs a community has or the number of citizen contacts that have occurred. Effective and efficient programs should be based on the bottom-line impact they have on reducing fire injury, death, and property loss. This requires a realignment of organizational goals to focus on identifying and prioritizing impact areas rather than program areas.

The change program must be two-fold. Internally, you must modify attitudinal and motivational patterns of members and leaders and work

toward long-term changes in organizational culture. Externally, you must convince community members of the importance of prevention and instill in them the attitude that fire injury, death, and property loss are unacceptable in our society.

Organizational Culture

Organizational culture is the patterned way of thinking, feeling, and acting that exists in an organization. It is what makes the organization unique and different from every other organization. It is important to understand the culture of your organization when introducing prevention change. Individuals are affected by the organizational culture, and the organization is affected by the cultural influences of the individual. In order to influence the leaders and members of an organization, it is necessary to understand what is important to them. Because changes in organizational culture are difficult to bring about and take a long time, it is more practical to function within the existing culture and attempt to influence the involved stakeholders.

Elements of Fire Department Culture

- Management philosophy--amount of individual initiative permitted by managers.
- Organizational structure--levels of supervision.
- Composition of department--career, volunteer, combination.
- Communication patterns--horizontal or vertical.
- Reaction to change--proactive or reactive.
- What things are valued and rewarded.
- Tolerance for risk. Are members encouraged to be aggressive, innovative, and risk seeking?
- Openness--degree to which members are willing to be open and honest about differences.

RESISTANCE TO CHANGE

Resistance to change comes from individuals, management, and the organization as a whole. It is important to understand that the basis of resistance varies with the source.

Individual Resistance to Change

- Fear of the unknown.
- Economic insecurity, which may be a real or perceived threat, and effects on assignments or responsibilities.
- Fear that skill and expertise will lose value.
- Threats to power held by individual.
- Inconvenience.
- Changes in groups may disrupt routines or social structure.
- Habit.
- Inability to recognize need for change.

Management Resistance to Change

- Oriented to doing things on short-term basis.
- Losing control of people or events.
- Personal interest in the status quo.
- Do not know what to do about change or how to handle it.
- Cannot foresee how change will affect them.
- Perceive that change does not fit their needs and hopes.

Organizational Resistance to Change

- Members want stability.

- Change disrupts established norms within work groups.
- Disruption of existing balance of power.
- Previously unsuccessful change efforts.

Potential Change Issues Associated with Prevention Initiatives

There are many areas affected by potential changes. Before initiating changes, you should proactively understand and be prepared to deal with the issues affecting each stakeholder group and area.

- Union.
  - change in working conditions;
  - contract; and
  - grievance.
- Personnel.
  - fears/doubts;
  - questions;
  - not my job; and
  - resistance to any change.
- Culture.
  - change in priorities;
  - change in system;
  - change in power (prevention now controlling station time); and
  - if you are going to change the culture, you need help from within.
- Community.
  - need to be sold on importance; and
  - need to understand need.
- Administration.
  - city manager approval;
  - funding; and
  - shift in fire protection program.
- System.
  - impact on other fire divisions' programs; and
  - impact on other programs.
- Management.
  - impact on time;

- change in priorities; and
- complaints from personnel.

OVERCOMING RESISTANCE TO CHANGE

After determining needed changes, it is necessary to identify the various stakeholder groups, determine their readiness to change and whether the position of the stakeholder will be one of active support, acceptance, neutrality, or resistance. Initially, the most important stakeholders are the organizational leaders. Without their support, it is unlikely that the change effort will be successful. This module provides guidance on how stakeholders can be convinced of the need for change and the desirability of supporting it.

Personal Actions of the Change Agent

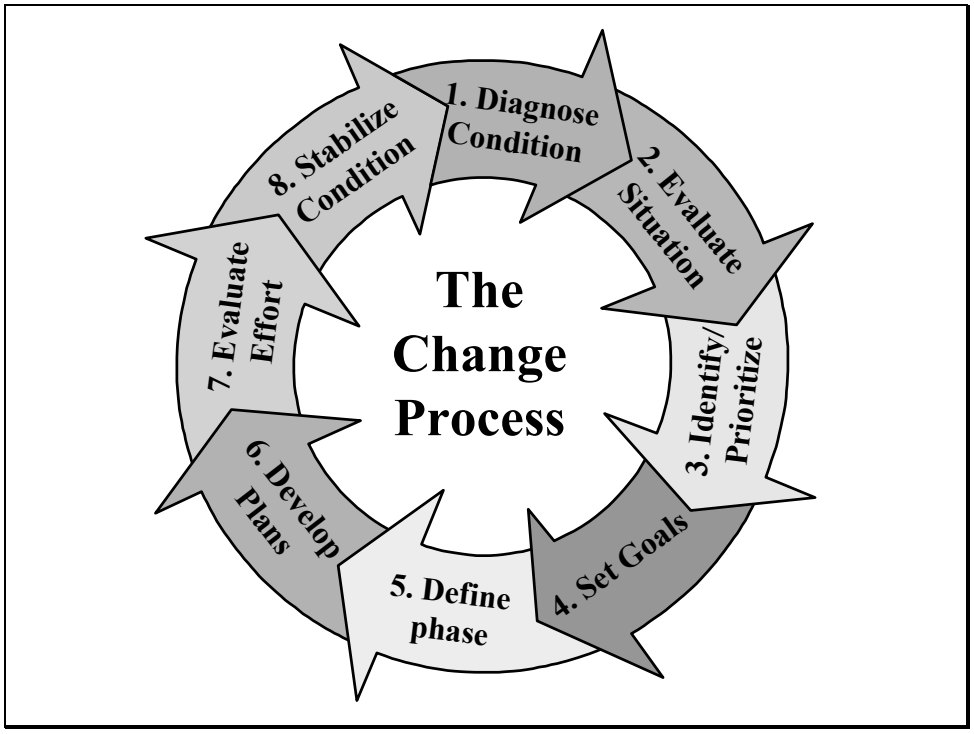
As a change agent, there are certain personal actions that you can take to overcome resistance to change. You need to provide empathy and support, develop and strengthen communication before, during, and after the change, involve the members, make sure changes are reasonable, and follow a sensible time schedule.

Determine Type of Organizational Change and Apply Appropriate Approach

Organizational change may involve changes in the structure of the organization, changes introduced because of new technologies, and changes required of people. Changes in organizational structure may be approached by modifying rules, responsibilities, and procedures, changing power structure or span of control, examining job descriptions in terms of efficiency and effectiveness, and adjusting the level of decisionmaking. Technological improvements lead to more efficient work, but the value of the improvement must be demonstrated in a convincing manner. Lewin described a three-step process for bringing about changes in people. First, unfreezing must occur. The change agent must recognize and convince others that the current state of affairs is undesirable and in need of change, and then work toward reducing forces that are trying to maintain the organization's behavior. Second is instituting the actual change by a planned attempt to create a more desirable state for the organization and its members. The new alternative is presented as a clear and attractive option to the current way of doing things. Refreezing is the final step. The changes made are incorporated into employees' thinking and the organization's processes. The change agent supports and reinforces new

behaviors and makes appropriate adjustments through followup and adjustment.

THE CHANGE PROCESS--HOW DO WE PREPARE ORGANIZATIONS FOR CHANGE?



1. Diagnose the present condition.
2. Evaluate the change situation within the organization.
3. Identify and prioritize impact areas.
4. Set goals.
5. Define the transition phase.
6. Develop strategies and action plans for managing change.
7. Evaluate the change effort.
8. Stabilize the new condition.

Diagnose the Present Condition (Current Problems)

Change always starts with a problem. Problems arise from sources either internal or external to the organization. One of most difficult change problems to deal with is overcoming resistance to change.

To identify and analyze the problem, you need to look at forces for and against change. Forces for change may be from the external environment (values of society, special interest groups) or be based on internal employee and management attitudes, outdated policies, poor decision-making and communications, high turnover, and absenteeism. Forces against change lie in uncertainty, the inability to tolerate change, monetary and psychological investment in the current system, emotional turmoil, or bad past experiences with change. After identifying forces for and against change, you need to decide how easy it would be to weaken forces against change and strengthen forces for change. Generally it is easier and more effective to weaken forces against change than to strengthen forces for change. If you push hard for change, the resistors push back even harder.

Evaluate the Change Situation Within the Organization

The change situation within organizations is determined by the readiness of the organization to change, its capability for change, whether the organizational culture is accepting of change, and the ability of the change agent to bring about the change. If readiness does not exist, the focus needs to be on developing this willingness. Change takes place if need is high and resistance is low. If capability does not exist, preliminary training of change agents is required.

Answers to the following questions will help you to evaluate the impact on the organization:

- What will it change?
- How will it change?
- Who will it affect?
- How will the affected people react?
- How can I get everybody to buy in?
- How will it affect me?

Identify and Prioritize Impact Areas

When determining priorities, you should focus on the impact your efforts will have on the fire problem rather than developing programs for their own sake. As an example, you should focus on reducing residential fire deaths rather than counting the number of smoke detectors installed.

Set Goals and Define Desired Condition After the Change

When determining your goals, you must decide the outcome that you hope for after your intervention.

- Assess current situation--what is happening now?
- Listen to the stakeholders to establish trust.
- Define, analyze, and prioritize the prevention problems.
- Clarify objectives--what is it that you want and need to achieve?
- Brainstorm potential solutions.
- Provide direct, specific, personal, and honest feedback to stakeholders.
- Finalize goals.

Define the Transition Phase Between the Present and the Future

The transition phase is a unique, temporary condition that occurs as the organization moves from old conditions and problems to new conditions.

Decide what changes are going to be made in:

- mission/objectives of organization;
- organizational culture;
- technology;
- people; and
- organizational structure.

Establish necessary special ways of working together:

- Develop temporary policies and procedures during the change.
- Demonstrate flexibility to try new things.
- Loosen control and procedures.
- Create new communication channels.
- Meet frequently to monitor the unforeseen, to give feedback, or to check on what is happening.

Develop Strategies and Action Plans for Managing the Transition

Involves preparing and executing change plans, setting up the structure for accomplishing the change, and keeping all parts working together.

Workable prevention strategies:

- Engaging approach gets and holds people's attention and interest from the beginning.
- Sound-in-concept approach whereby the change needs to make sense, provide a clear rationale, and stand up to scrutiny over time.
- Easy-to-communicate approach should provide a language that is easy to use and that enables people to keep in touch with one another and interpret what is happening to others.
- Skill-oriented approach should equip people with workable skills that are easily taught and readily usable.
- Results-oriented approach should lead to tangible action that is based upon realistic assessment of both current and desired conditions and is capable of attaining the latter.

Values supporting prevention activity.

- People can become responsible, within realistic limits, for shaping the conditions under which they live, work, learn, use their leisure, and otherwise spend their time.

- People are their own best resources for bringing about change that is important to them.

- Participation by people in shaping the conditions that affect them promotes ownership and vested interest in the change being sought and increases commitment to seeing that the change is achieved and maintained.

- It is desirable to promote change through the use of the existing human, physical, and financial resources of the community.

Evaluate the Change Effort

Both the change itself and the process used to make the change should be evaluated. For greater objectivity, your criteria for success should be determined before change.

Stabilize the New Condition and Establish a Balance Between Stability and Flexibility.

As a final step, you need to keep people from slipping back to old habits. Techniques for accomplishing this include review meetings, performance appraisals, and tying rewards to performance.

KEYS TO SUCCESSFUL CHANGE

- Plan motivating and influencing activities within the boundaries of the organization's culture.

- Build member commitment by regularly give members straight-forward information, pointing out benefits of change to individuals, encouraging, and seeking help of people who are deeply committed to your idea.

- Listen to people's reactions. Correct misconceptions and see who is resisting and what and why they are resisting.

- Empower others by delegating to those who are willing, seeking buy-in, and allowing people to be creative.

- Work toward leadership and member commitment, but don't overload people. Start small and build upon success.

- Acknowledge the people who made it work by creating incentives for special effort and publicly acknowledging groups and individuals who have helped to make things happen.

IMPLEMENTING CHANGE

- Motivate by creating readiness for change and helping to overcome resistance to change.
- Create a vision for desired change by providing a reason for change, and describing desired future state.
- Provide appropriate training in new skills and coaching in new values and behaviors.
- Develop political support by gaining support of powerful individuals and groups needed to implement change.
- As you implement, be guided by your vision.
- Sustain momentum by providing resources, building a support system for change agents, developing required competencies and skills, and reinforcing desirable new behaviors.

PREVENTION ACTION PLANNING

1. Describe the change as completely as you can.
2. Identify all affected internal and external stakeholder groups.
3. State specifically how it will affect each stakeholder group, and estimate the degree of support you expect from each.
4. What is your vision of the best possible outcome?
5. What are the strengths of your group in undertaking the change?
6. What are the obstacles the change will bring to prevent you from reaching your goal?
7. What are your action steps for:

    a. Communication?

b. Dealing with resistance?

c. Involvement?

d. Leadership?

8. What is your timetable for this change?

9. What new skills, knowledge, and attitudes are needed to make this change?

10. How will you acknowledge, recognize, and celebrate the change?

Activity 3.1

The Real and Ideal Worlds of Prevention

Purpose

To differentiate between how your organizations view and act upon prevention issues at present, and what you view as the ideal situation.

Directions

1. List some examples of how your organization views and acts upon prevention activities and issues at present and what is likely to happen in the future. For example, "We grudgingly participate in company inspections of target hazards, but feel that we do not have the time to do other more important activities."

2. For each example listed in question 1, you should list the outcome you would like to have (the ideal situation). For the example given above, "The ideal situation would be that company members recognize the importance and value to suppression activities of company inspections."

3. The difference between an existing situation and the ideal is called a gap, and the process you have used is called gap analysis. You should identify restraints that would keep your organization from moving from what is likely to happen to what you would like to happen.

4. After 10 minutes of individual work, discuss your lists and share observations about the process.

5. Select one group member to present a 2-minute summary of what the group learned from the activity or something interesting you discussed.

Activity 3.2

Organizational Culture

Purpose

To describe some elements of your own organization's culture.

Directions

Develop preliminary answers to the questions below. In order to get a clear idea of the elements of your organization's culture you will have to spend additional time on these questions. Your ability as a change agent for prevention and to influence others depends upon your understanding of your organization's culture. Be prepared to share your answers with the class.

1. Who's who, and who matters in your organization?

2. Who is "us"? Who is "them"? How do we treat "us" and "them"?

3. How do we do things, and why?

4. What makes something a problem, and how do we react when a problem comes up?

5. What really matters in the organization, and why?

Activity 3.3

Managing Change

Purpose

To analyze the change process as it was applied to a recent change introduced into your organization.

Directions

You will identify a recent situation in which some change was introduced into your organization and answer the following questions.

1. Provide a brief summary of the change and how it was implemented.

2. Was there resistance to the change?

3. Why or why not?

4. Looking back, what could have been done to make the change smoother and more successful?

5. Share your answers with the other members of your group.

6. Be prepared to share the group's answers to question 4 with the whole class.

Activity 3.4

Planning a Prevention Change

Purpose

To identify a desirable prevention change and develop an action plan for implementing it.

Directions

1. Your group will brainstorm ideas for a prevention change for which you will develop an action plan. From your list, select a group problem. You should make any reasonable assumptions about the community and the fire department that you need in order to complete the activity.

2. Your group then will complete the following questions.

   a. Describe the present condition in terms of the 3-E's.

   b. Define the desired condition in terms of the 3-E's.

   c. Evaluate the change situation within your organization. What are the strengths of the group undertaking the change?

   d. Identify and prioritize community impact areas.

   e. Set goal(s). What are the potential obstacles to reaching the goal?

   f. Define the transition phase. How will you deal with communication issues, resistance to change, getting people involved, and needed leadership?

   g. Develop strategies and action plans for managing the change.

   h. How will you evaluate the change effort?

   i. How will you stabilize the new condition?

   j. How will you acknowledge, recognize, and celebrate the change?

3. Select a spokesperson who will make a 5-minute presentation of the group's change plan to the class.

MODULE 4: INFLUENCE

TERMINAL OBJECTIVE

The students will be able to develop an influence process by which they will advance their prevention efforts.

ENABLING OBJECTIVES

The students will:

1. *Identify internal and external stakeholders whom they will have to influence in order to institute desired prevention programs successfully in their departments.*

2. *Explain factors that account for power differences between groups in an organization.*

3. *Recognize tactics used to influence people.*

4. *Explain how empowerment, negotiation, networking, and coalition building can assist in the influencing process.*

5. *Given a scenario, develop and role-play an influence attempt.*

INTRODUCTION

Earlier in the course you identified prevention changes you thought might be appropriate to make in your community. Most changes are made through people--either by influencing them or by requiring them to comply with the wishes of management. When complying, people conform because they feel they have to do so. When people are influenced, they conform because they want to. Compliance is used when the leader has power over the follower. Influence is the appropriate tool to use when the leader does not have the power to order the change.

STAKEHOLDERS--WHO ARE THE PLAYERS?

A stakeholder is person who has interest in the outcome of what you plan to do. It is important to identify the prevention stakeholders in your organization and in your community. In general, there are three groups of stakeholders. In the first group, you will find those who will actively support your effort, and you can get them involved with relatively little effort. The second group includes those who oppose your effort. It is important to give them a chance to participate, to react to ideas, and to state clearly why they are opposed. In the third group you will find those whose commitment to your effort is unknown, but would be useful to have. This group would include people with specialized skills, particular influence, or valued perspectives. You should consider stakeholders who are internal to the organization as well as external stakeholders.

POWER AND AUTHORITY

Authority is the ability to require results and is usually granted by the formal organization. Authority is vested in organizational positions and is accepted by subordinates. Power is defined as the potential ability of one person to bring about desired outcomes or to influence other people to carry out orders or do something they otherwise would not have done. If one person has more power than another, the power holder can achieve compliance with requests.

TYPES OF POWER

We normally think of five types of power:

- Legitimate power--exists by the nature of the position held.

- Reward power--when one person has control over the rewards another wants.

- Coercive power--use, or possible use, of power in a way that is viewed as unpleasant if a person doesn't comply.

- Expert power--exists because of special skills or expertise the person holding power has.

- Referent power--when individuals are susceptible to influence because they identify with another person, or desire to do so.

Typically we think of two bases for power, ascribed and achieved power.

- Ascribed power is organizationally based and it exists due to the person's position in the organization. Legitimate, reward, and coercive power are ascribed.

- Achieved power is personally based and is held by an individual because he/she possesses attributes valued by others. Expert and referent power are achieved. Influence is a function of a person's achieved power.

Expert power is increased by maintaining a personal skill level, creating a dependence by the organization on the individual, and maintaining personal control of experts so other people cannot take your place.

Referent power is perpetuated by developing a charismatic image, controlling interactions within work groups, evoking specific negative images of the past, and speaking in general, but positive, terms about the future.

POWER OF LEADERS AND FOLLOWERS

Power Sources for Top Management

- Formal position.

- Resources they control.

- Control of decisions and information.

- Can place themselves centrally, which puts them in a position to be well informed, to have access to others, to have multiple people dependent on them, and to build alliances and loyalty.

Power Sources for Middle Managers

- Power that enables people to be productive.

- Power that is built into positions through the design of task activities and interaction opportunities within the organization.

Power Sources for Lower Level Participants

- Often, power is disproportionately greater than the position warrants, sometime because it reflects the personality and skill of a member. Other times it is because of expertise, physical location, information, and the personal effort that the member puts forth.

- When people become knowledgeable and expert in certain activities, they can influence decisions. People who show initiative, work beyond what is expected, take on undesirable but important projects, and show interest in learning find themselves with influence.

- Manipulation and persuasion are also sources of upward influence. Persuasion is a direct appeal to upper management. Manipulation, on the other hand, is arranging information to achieve the desired outcome, and the true objective is often concealed.

- All power exists only if a person is willing to use it.

INFLUENCE TACTICS

Introduction

Effective influencing depends upon the relative power of the agent, the degree of anticipated resistance from the target, and type of tactic used. It is important to have a reason for using a particular tactic (why you think it will be effective). Use tactics that lead to positive outcomes rather than those that put others down

Specific Tactics

- Leading by example--Influencing group members by serving as a positive role model (e.g., "I am going to be helping out at the fundraising activity. Will you give us a hand?").

- Assertiveness--Expressing what the leader wants done and how the leader feels about it (e.g., "You are late for training and that annoys me.").

- Exchange--Offering to do something for another person if he/she will do what you want (e.g., "If you will cover my duty tonight, I'll cover yours on the holiday.").

- Coalition formation--People arrange to work together to combine their power, and exert influence on another person or group (e.g., "You are able to influence the younger members and I can handle the older ones so, if we work together on this project, we'll be able to achieve our goal.").

- Humor--Good-natured kidding may be accepted better than straightforward criticism (e.g., "We missed you at the 5 a.m. call this morning. Did you have a hard time getting out of bed?").

- Rational persuasion--uses logical arguments or factual evidence.

- Inspirational appeals--arouse enthusiasm or emotions.

- Personal appeals--do a favor out of friendship.

- Consultation--agent asks target to participate in planning.

- Ingratiation--agent tries to get target in a good mood before making request.

- Pressure tactics--threats or persistent reminders.

- Legitimizing tactics--agent makes a request based on position or authority.

- Controlling information.

- Use of sanctions.

USING POWER AND INFLUENCE

Tactics for Increasing Power Base

- Enter areas of high uncertainty--if you can remove them you will gain power.

- Create dependencies--information, materials, knowledge, skills.

- Provide resources--money, information, facilities.

- Satisfy strategic contingencies--some elements in external environment and within the organization are especially important for organizational success, and working in those areas increases importance and power.

Tactics for Building Political Power Base

- build coalitions;
- expand networks;
- control decision premises;
- enhance legitimacy and expertise; and
- make preferences explicit, but keep power implicit.

INFLUENCING TOOLS

Empowerment

Empowerment is power sharing where the leader systematically shares power and control with members. It implies that members have knowledge and skills to contribute to department goals. Members experience a greater sense of personal effectiveness, motivation, and ownership. The key issue is the leader's acceptance of the member as a partner in decisionmaking. Members have the responsibility to develop personal ownership.

In terms of prevention initiatives, you personally have the potential to make an impact. Don't wait for departmental approval to spread the prevention word. You can preach the message anywhere and anytime. Develop a can-do attitude. You are always on duty for prevention. When you see it, do you say it?

Negotiation

Negotiation is an excellent influencing alternative to conflict and strife at both the personal and organizational level. It gets interested parties together to discuss issues and concerns and reach solutions that are winners for all sides. Know what you want to achieve, ask for what is fair and reasonable, maintain flexibility in your own demands and interests, listen to what the people you are trying to influence want, and try to meet their requests.

Networking

Networking is an ongoing communication between persons or organizations in which each party shares common information or interests with the others. In most cases the parties also share a common goal. Sharing of information, ideas, and materials occurs on a continuing basis. The sharing may not always be equal, but it should be ongoing.

Coalition Building

A coalition is an organization of individuals representing diverse organizations or interests who agree to work together to achieve a common goal. There are two major variations of coalitions:

Grassroots Coalitions

- often are formed in times of crisis to pressure political decision-makers to act;
- frequently are organized by volunteers; and
- disband when the crisis situation is resolved.

Professional Coalitions

- may form either in a time of crisis or to increase their power and influence; and
- may be beset by issues of "turf" control.

Coalitions are effective because they bring together sufficient numbers of interested people and gather resources. They also help groups learn to communicate and trust one another, and reduce the possibility of duplication of effort. They can effect changes in different community sectors by bringing together community leaders representing diverse constituencies. Coalitions can be temporary or permanent. Coalitions maximize the power of participating groups through joint action. They minimize duplication of effort among groups that normally would compete against one another, by pooling talent and resources and developing and demonstrating widespread public support for issues, actions, and unmet needs.

Coalitions should be started if a problem would best be solved by an array of community members working toward a common goal. A coalition may be the most effective organizational structure in such a case.

When there is active involvement by many segments of the community, it significantly increases the likelihood of success. Not only do they bring together a sufficient number of interested people to make change, they also gather potential resources necessary for the task. They bring together leaders representing diverse constituencies, and this helps them learn to communicate and trust one another. By pooling talents and resources, they tend to develop and demonstrate widespread public support for the issues, actions, and/or unmet needs.

The following questions may be asked to determine if a coalition is the best choice:

- Is there an organization already in place that could address the problem effectively and more efficiently?
- Would the problem be solved more effectively or permanently with the joint ownership and responsibility of others, or can an organization be just as effective on its own?
- Is this a problem that is perceived as a problem by other organizations or special interests?
- Are you willing to relinquish control to a coalition, or do you just want advice?
- Are funding sources or agencies willing to give up or share control of the project?

INFLUENCE PLANS

An influence plan is a step-by-step process for developing the arguments to be used to attempt to influence another person's behavior. The process involves asking these questions:

- Whom do I want to influence?
- What exactly do I want to happen at the first meeting--what is my objective for the encounter?
- What are the relevant characteristics of the other person--what about this person might provide a clue to the best influence tactic?
- What relative power does each of us have?
- What actual arguments should I use as I apply each tactic?

- What conflicts do I expect?
- How should I deal with these conflicts?

SUMMARY

Your responsibility is to develop individual influence plans, incorporating the ideas presented in this unit, in a way that is suitable to your own real world.

- The activities and discussions in the course have provided prevention tools.
- We charge you with the responsibility of using these tools in your own community to make a difference.
- Become a "preventioneer" and reduce the loss of life and property in your community. **YOU DON'T NEED PERMISSION FROM ANYONE!**

Activity 4.1

Stakeholders

Purpose

To develop a list of potential stakeholders who will have to be influenced, given a prevention change to be made in a specific area.

Directions

1. Your group will be assigned a type of stakeholder and a prevention change to be made.

2. In your group, identify potential stakeholders who will have to be influenced if a prevention change is to be made in the particular area. Your group should list your results on an easel pad and have a spokesperson to present them. You will have time to work only on your assigned group. The other groups are listed for your note-taking convenience.

   a. Potential internal stakeholders when undertaking an engineering change.

   b. Potential external stakeholders when undertaking an engineering change.

   c. Potential internal stakeholders when undertaking an enforcement change.

   d. Potential external stakeholders when undertaking an enforcement change.

   e. Potential internal stakeholders when undertaking an education change.

   f. Potential external stakeholders when undertaking an education change.

3. Personalize this activity by asking yourselves whether each of the stakeholder lists would be the same in your own community. If not, modify the list.

Activity 4.2

Power and Influence Tactics

Purpose

To select appropriate influence tactics based on your perception of the power you have.

Directions

1. From the list of tactics discussed in class, your group should pick those tactics most suitable for dealing with each power source.

2. Your group should be prepared to report your results for one example of appropriate influence tactics.

Activity 4.3

Planning to Influence

Purpose

To plan and role-play an influence attempt to deal with a situation, given a scenario.

Directions

Your group has been assigned one of the following scenarios. One of the members should play the influence target and the other members will play the influence agents. You will plan the influence attempt to achieve the goal outlined in the scenario and decide how to illustrate it through a role-play. The role-play should not take more than 5 minutes. We are not expecting a professional acting job, and your group should relax and have fun.

Scenarios

Group 1

You want to convince the City Manager that he/she should permit fire department representatives to participate in plans review for new construction. In the past few years, several apartment complexes have been built with poor access and incorrect hydrant location. You might want to consider road width, parking restrictions, dead-end roads, and any other areas that your group feels are important.

Group 2

You want to convince the local school superintendent that there should be a pub ed program in each elementary school at each grade level. He/She seems unwilling to do this because he/she has had resistance from the elementary school principals and teachers. They feel that they do not have time to do an adequate job with the curriculum they are already required to teach, much less for pub ed programs that the children will probably never use.

Group 3

You want to convince the local political party chairperson that the code enforcement official should be permitted to enforce the fire code rigidly. The community has adopted a current edition of a national fire code, but politicians have insisted on minimal enforcement because they are afraid the voters will rebel and seek revenge at the next municipal election.

Group 4

You want to convince the fire chief to adopt and present a new prevention program for senior citizens. Your community has a large senior citizen population. The chief has limited financial resources, and the fire officers and firefighters feel overwhelmed by already existing special projects.

Group 5

You want to convince your department's firefighters that they should undertake a new company inspection program, requiring new inspections of all target hazards in your community with the exception of single and two-family dwellings.

Activity 4.4

Personalizing the Course

Purpose

To apply the knowledge and skills developed in the course to a prevention challenge that exists in your own department and to develop a tentative action plan for dealing with that challenge.

Directions

Identify a fire problem that exists in your community. If you have limited experience in prevention, you might want to select a less complex challenge. If you are more experienced, you may want to select a greater challenge. It may either be a specific type of hazard or a specific group of people. Complete the questions below as they apply to the problem that you chose.

1. State the prevention problem that you have selected.

2. Which of the 3-E's are applicable to your problem? Why?

3. What is the objective that you hope to achieve?

4. Identify all affected stakeholder groups and state specifically how your proposed solution will affect each stakeholder group.

5. What influence tactics will you use with each stakeholder group?

6. List the action steps for communication, dealing with resistance, securing involvement, and leadership.

7. Complete the Action Plan (below).

Action Plan for Program Objective

	Task	Who's Responsible?	By When?	Needed Resources?
1.				
2.				
3.				
4.				
5.				
6.				
7.				