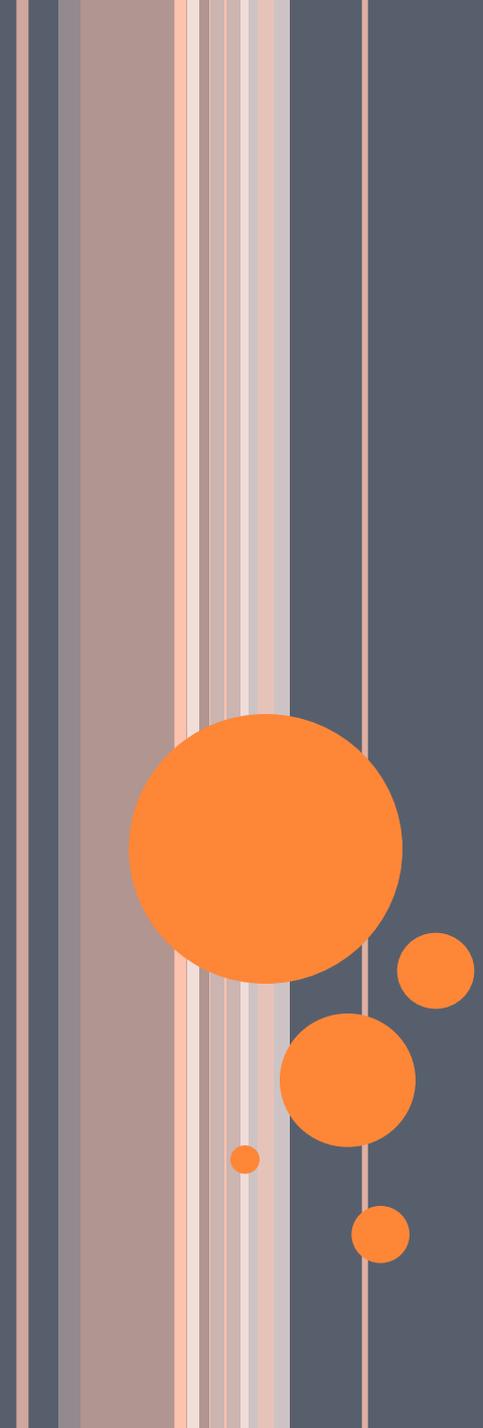


# FIRE AND LIFE SAFETY

1

Kansas State University  
Environmental Health and Safety

The following training program is courtesy of the Kansas State Fire Marshal Office



# FUNDAMENTALS OF FIRE AND LIFE SAFETY IN KANSAS

University Fire Marshal

# THE GOAL OF THIS TRAINING

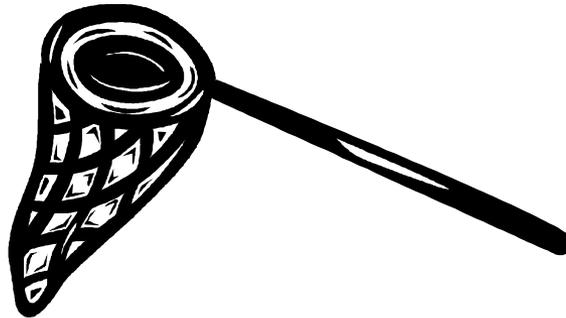
To enlist ALL

- Building managers
- Faculty
- Staff, and
- Building occupants

**TO BECOME SHAREHOLDERS IN FIRE AND LIFE SAFETY**



**Kansas Fire Prevention Code**  
is called  
**Safety NET**



# **Kansas fire Prevention Code includes:**

Code violations

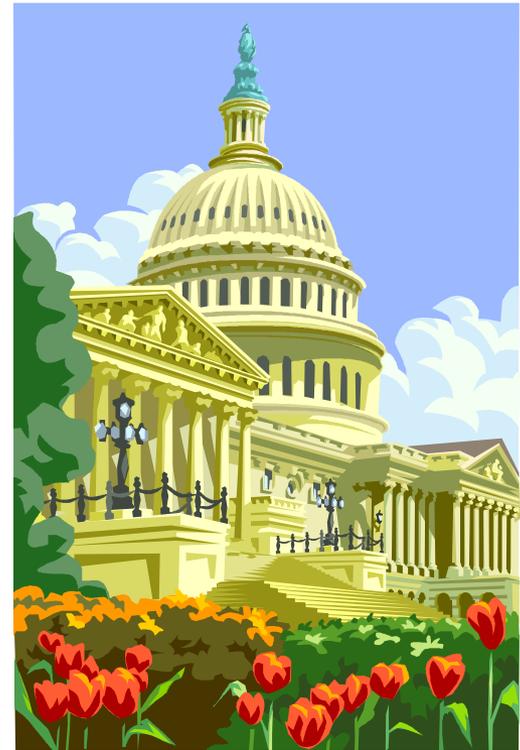
Exiting impediments

Dangerous conditions



# KANSAS FIRE PREVENTION CODE INSTRUCTS...

- ❖ Policy and office practice
- ❖ Nationally promulgated codes
- ❖ Administrative Regs
- ❖ Statutes



# CODE REQUIREMENTS

- Use or occupancy determines building's fire and life safety requirements
- When a building's use changes, it is considered **NEW**
- The exiting, fire alarm and automatic sprinkler requirements must meet those of a **new building**



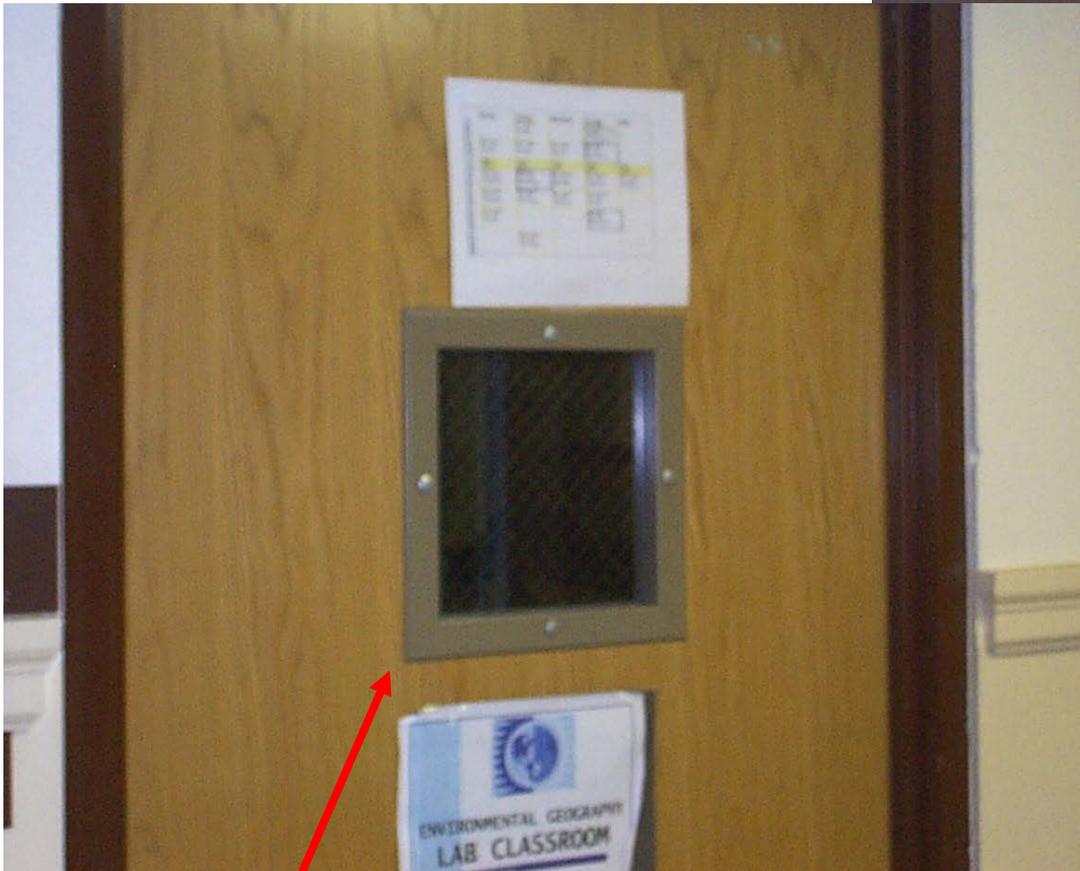


**Violation:** Improper storage of compressed gas cylinders.

Compressed gas cylinders must be chained or belted to prevent falling.



# Fire door identification label



Fire door



The glass' size is 100 sq. inches maximum



The Kansas Fire Marshal *recommends* that all NEW school buildings in Kansas be provided with an automatic sprinkler system.



Kansas Fire Prevention Code prioritizes

**People first**

and then Property



# KANSAS FIRE PREVENTION

Requires:

- Free access to **exits**
- Operational **fire alarms**
- Activation of **sprinkler systems**  
will sound alarm.



# WHAT IS THE PROBLEM?

- Unfortunately, building occupants do not respond **immediately** to emergency conditions



# SPEED IS WHAT YOU NEED

- **Alarms are meant to alert occupants in the event of a fire.**
- Safety is best assured with **speedy exiting**



# GRANDFATHER CLAUSE

If the Kansas Fire Marshal identifies conditions which impede speedy exit or are dangerous, the building owner must comply.

In Kansas there is NO “grandfather clause” for exiting.



**E** - EXITING  
**N** - NOTIFICATION  
**D** - DETECTION  
**S** - SEPARATION  
**S** - SUPPRESSION



# MINIMUM REQUIREMENTS FOR EXITING

- **Clear hallways and stairways (no furniture, equipment or storage)**
- **Clear access inside and outside**
- **Less than 30% of the hallways or stairway walls may be covered by displays or decorations**
- **Doors may not be covered with combustibles**
- **Emergency lights in all exit paths**





# Emergency lights





## Violations:

Exit/egress obstructions

Improper storage in  
hallways

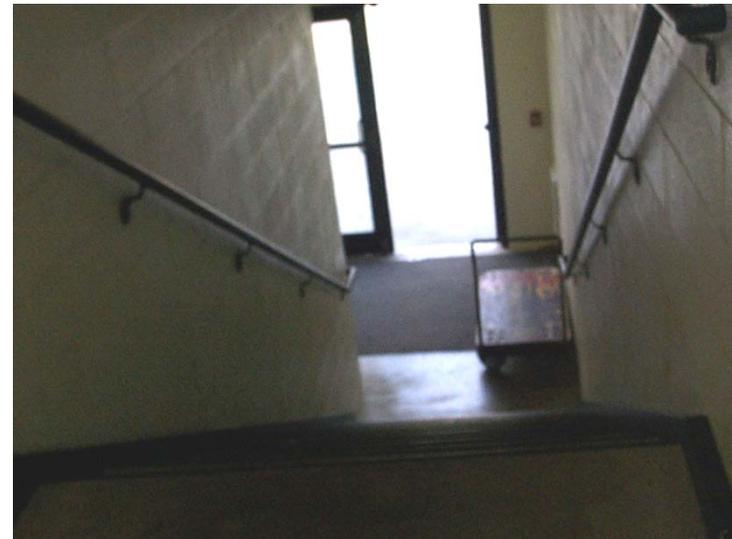




**Violation:**

Exit/egress  
obstruction

Improper storage in  
hallways





**Proper** construction site for EGRESS - open pathway with no trip hazards.

**Violation:**  
Construction blocking egress

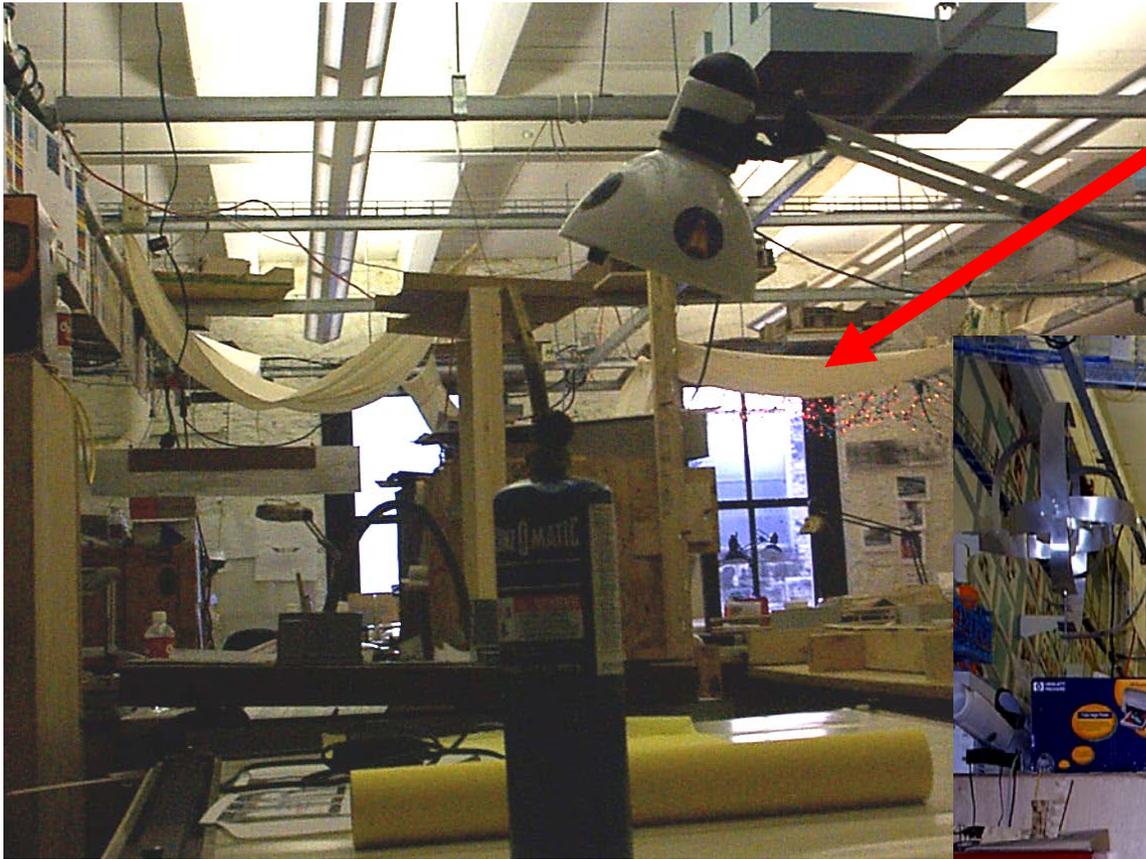




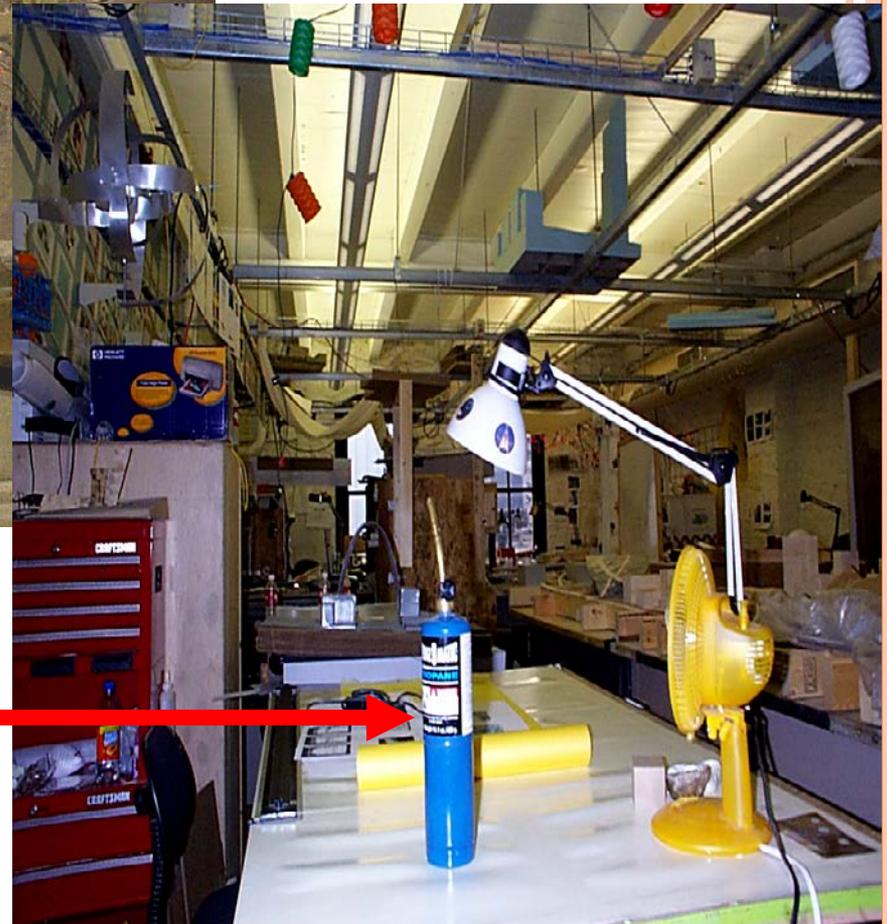
**Violation:**

Excessive decorations from ceiling





**Violation:**  
excessive fire-load



**Violation:**  
Improper combustible/  
flammable usage

# MINIMUM REQUIREMENTS FOR EXITING

- **Exit doors not blocked**
- **Door closures**
- **Panic hardware**
- **Exit signs visible & illuminated**
- **No improper locks, such as chains and padlocks or drop-in devices**





Fire-door magnetic hold-open device





15-second time delayed panic hardware on door



Magnetic locking devices.

Will automatically de-energize in case of fire

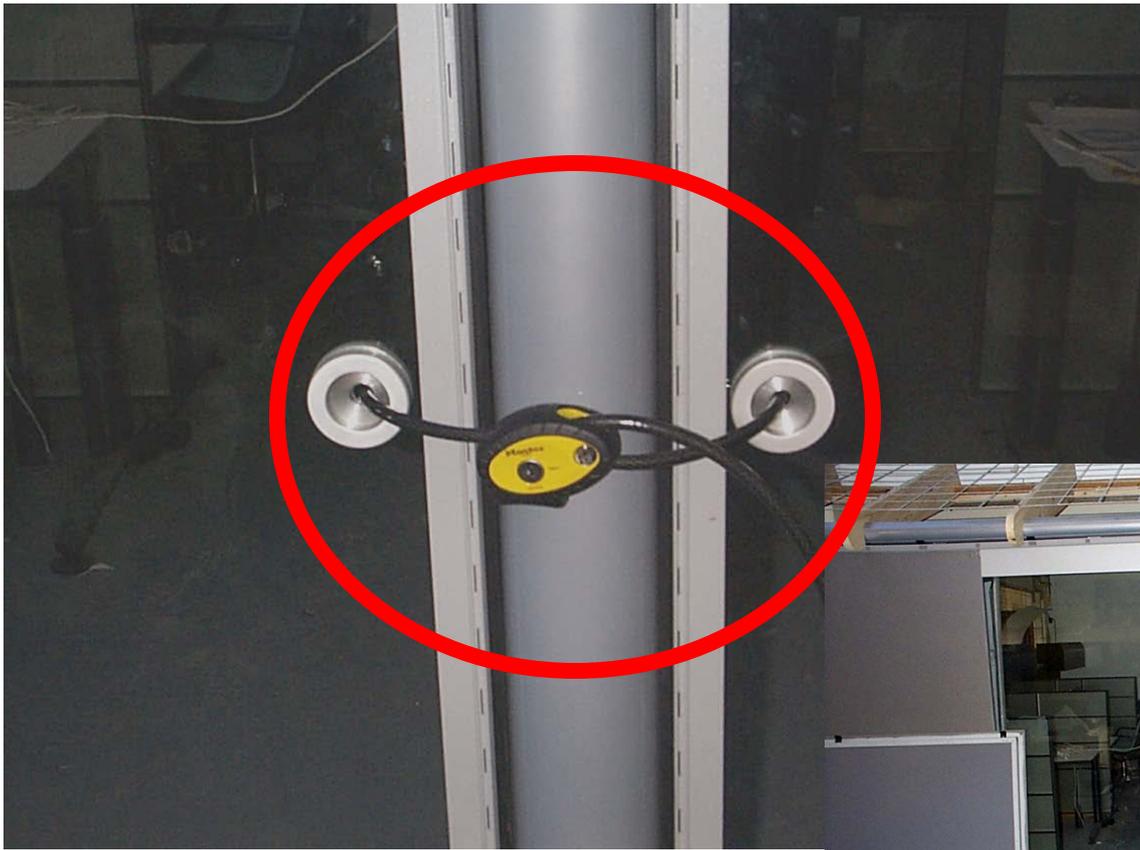




**Violation:**  
covering EXIT sign

**Violation:**  
Door-closer with a fire-link





**Violation:**

Padlock on exit door





**Violation:**  
Propped open fire-door



Violation:

Emergency exit blocked



# NOTIFICATION

## **In case of fire**

- \* Activate the fire alarm & evacuate the building
- \* Call University Police to report the fire (911 or 2-6400)



# NOTIFICATION

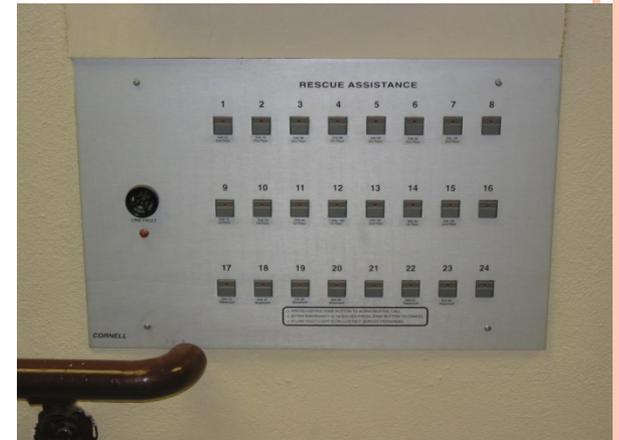
**Pull stations** are located at:

1. All **Required** exterior exits
2. At intervals of no more than 200 feet
3. At exits from all floor levels
4. In rooms with exterior exits **used** by building occupants.





Fire alarm panels



# DETECTION



Smoke and/or Heat Detection is required for special areas:

- Childcare
  - Residence Halls
  - Buildings with Exiting Problems (open stairs, below grade occupancy, dead-end hallways, construction exiting)
  - Special Hazard Areas (labs, flammable storage areas)





Smoke (beam) detector



Fire and smoke detector



# SEPARATION

- Proper fire separation doors
- Fire Doors kept closed **at all times!**
- Properly protected or sealed transoms
- No holes or missing tiles in ceiling
- No holes, grills, or openings in walls or floors
- Proper construction (sheetrock, masonry, or concrete)





**Violation:**

Improper storage in boiler/furnace room.

DO NOT store materials in these areas.





## Violation:

Location of window, improper separation of lab  
to egress path



# SUPPRESSION

- \* Automatic Sprinkler System – wet, dry or both
- \* Standpipe Systems - wet, dry or both
- \* Fixed Extinguishing Systems
  - Kitchen cooking equipment and hoods
  - Flammable finish and fume hoods





Standpipe system, hose connection for Fire Department use

Standpipe system, exterior fire department connections





Sprinkler head

Hood suppression system,  
kitchen grease hood





The **National Fire Protection Association (NFPA)** has existed since 1896. NFPA has no record of a fire killing more than two people in a completely sprinkled public assembly, educational, institutional, or residential building, where the system was properly operating.



# COMPENSATORY MEASURES FOR EXISTING BUILDINGS ONLY

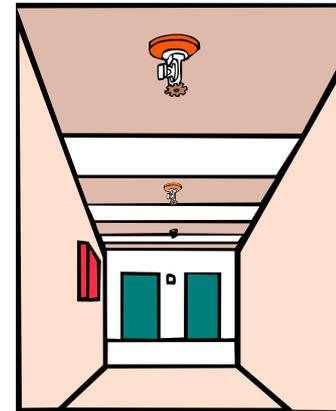
Compensatory measures are either qualitative or performance based.

The Kansas Fire Marshal may recommend compensatory measures to correct existing conditions which impede speedy exiting.



# PUBLIC SAFETY

**All** K-State safety systems (fire alarms, smoke detectors, heat detectors, and automatic sprinkler systems) are tested and maintained by Public Safety.



# PUBLIC SAFETY

We ensure that:

- Alarms are audible throughout the building
- There is a sufficient number of safety devices
- Safety devices are in the required locations
- Written documentation is kept as required



# KANSAS STATUTE 31-144

The Kansas Fire Marshal performs annual inspections and requires correction of dangerous conditions and impeded exiting.



**The...**

Kansas Fire Marshal inspections take 15 minutes to 2 hours per building

**Therefore -**

Building occupants are essential to maintain fire safety



## WHAT DOES IT MEAN?

All of us at K-State are responsible for fire and life safety on a daily basis, NOT the AHJ.

The AHJ (for K-state it is the Kansas Fire Marshal) ensures the checking, testing, and maintaining of the fire safety devices.



# TRYING TO ELIMINATE VIOLATIONS

- Ignoring simple LIFE safety violations will compromise the value of your life



WHAT IS THE KEY

Education

And

Cooperation

