

# Industrial Properties

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- 15.0800 Scope:**  
Industrial properties shall include factories, warehouses and buildings of high risk with special hazards.
- 15.0801 Before Leaving or While Responding From the Station:**
- Map book should be retrieved and opened to the correct page for the structure and hydrant locations while the apparatus responds.
  - Check the pre-plan book or MDC to see if one is available.
- 15.0802 1st Engine Placement:**  
Positioning of the engine is the responsibility of the officer. The engine should be positioned keeping the following factors in mind:
- Location of fire in building
  - Access to building
  - Keeping the front of building open for the ladder company
- Generally, at industrial complexes, after locating the fire, the first engine will park near an entry door that allows for the shortest access to the fire.
- 15.0803 First Arriving Engine:**  
Depending on the size of the facility and the location of the nearest hydrant, responses where there is smoke showing, visible fire or confirmed alarm, the first arriving engine should forward lay a 5-inch (LDH) supply line from the nearest fire hydrant prior to arriving at the fire building. In some cases it may be necessary to position the first arriving engine company at the nearest entrance to the fire building and allow the officer and fire crew to investigate the condition of the reported fire building (hydrant person & D/O should stay with Engine).
- 15.0804 Fire Brigade or Emergency Response Team:**  
If the facility has a known Emergency Response Team, the first-in engine should meet a team representative at the pre-determined location and obtain a size-up of the situation.
- 15.0805 Level 1 Staging:**

First arriving Engine responds to a pre-assigned position as noted previously or to the entry door closest to the fire origin. Industrial complexes are usually sprinklered so the second arriving Engine should support the sprinkler or stand-pipe system and utilize a second hydrant. Otherwise, all other units, except Command vehicle, shall stage 1 block away, ready to move to a suggested location or a location ordered by the Incident Commander.

**15.0806 First Arriving Engine Responsibilities:**

The first engine company (except driver) shall form a fire verification team (one officer and at least two fire fighters). This team shall verify the condition inside of the building or complex and report this condition to command. This team should transport with them equipment they think may be needed such as hose-line (pre-connected and/or high-rise pack), axes, pike poles, extinguishers, etc. Upon discovery or indications that a fire exists, the officer should seriously consider the size and length of attack hose. A 3" handline with a solid bore nozzle will provide the most reach and penetration.

**15.0807 Second Arriving Engine:**

**Sprinklered Buildings:** The second arriving engine shall secure a water supply and support the building's automatic fire sprinkler system. Depending on the situation, the second arriving engine may be needed to provide a water supply to the first arriving engine.

**Non-Sprinklered Buildings:** The second arriving engine shall locate an alternative hydrant and stand-by for further direction from the Incident Commander. The firefighters from the second arriving engine can be utilized for rescue or the placement of additional hand-lines. Personnel of the second arriving engine should be held uncommitted and shall be ready to stretch lines from the first arriving engine to the fire area. At the option of command, these additional firefighters can also be utilized for ladder company (support) activities, fire suppression, or as command deems necessary for control or mitigation of the incident.

**15.0808 Fire Attack:**

Fire attack shall be made with at least a 1 3/4" handline or greater and shall be in most cases from the unburned side of the building. Engine companies should plan on use of the building's fire suppressions systems such as standpipes and sprinklers. Let the sprinkler system do its job! Sufficient hose size, length and nozzle selection is critical to this operation. A 3" line with a solid bore nozzle may be necessary.

**15.0809 Ladder Company Positioning:**

The aerial ladder should be positioned for the best available use of equipment and personnel. Positioning will normally be the responsibility of the Incident Commander based on the size of the building, location of the fire, access, etc. On industrial properties, positioning should be made with the following objectives in mind:

- a. Use of ladder to roof
- b. Building collapse
- c. Master stream operations

**15.0810 Support Area:**

The ladder company officer or acting officer shall designate a support area or the pooling of equipment to be used in combating of the fire. All available equipment should be transported to this area.

**15.0811 Ventilation:**

Ventilation shall be carried out through the best and most effective means. Roof ventilation is desirable, however, this will not always be available. Use of exhaust ducts/fans, ventilation systems, and roof vent fans should be used to ventilate the effected area. Sophisticated HVAC systems use in the building may be coordinated through the facility's maintenance crew.

**15.0812 Ladders:**

Ladder company personnel shall be prepared to use ground ladders inside of buildings. The ladders will be used for fire attack for various machines that may become involved with fires. Ladders may also be used to rescue trapped or endangered workers.

**15.0813 Rapid Intervention Team:**

When interior fire attack occurs within a structure, a Rapid Intervention Team shall be assigned by the Incident Commander. The RIT Team shall secure the necessary equipment needed to perform an effective and efficient removal of personnel should they experience trouble. It will be the responsibility of the RIT Team leader to stay apprised with the probable location of all personnel who are operating within the structure. It will be critical to coordinate RIT Team activities with the Incident Commander along with the scene Safety Officer. See RIT Procedures located in Section 4.34. In an incident involving an industrial property, more than one rapid intervention team may be necessary.

**15.0814 Rescue Company Operations:**

It will be the responsibility of the Rescue Officer, or Acting Officer, to prioritize the support activities to be performed according to the fire conditions presented. Although some of the duties may have been already implemented by earlier arriving engine companies, it will be the responsibility of the Rescue Officer to coordinate the remaining activities to ensure they will be completed. The following are some of the activities or duties that must be addressed: rescue, ladders, forcible entry, salvage, ventilation, RIT and utility control. Many of these duties can be carried out simultaneously with one another.

**15.0815 Utility Control:**

The control of the various utilities such as gas, electricity, and water is essential for the containment of fires and to lessen the damage. Utilities shall be controlled as soon as possible but may require the expertise of plant personnel.

**15.0816 Salvage:**

Salvage efforts should begin as soon as possible to limit loss. Use of plant personnel may be extremely helpful as they have access to machinery to aid in this task.

**15.0817 Overhaul:**

Overhaul must be performed to ensure that the fire has been totally extinguished. Paper should be pulled apart and soaked thoroughly with water and removed from building. Care shall be taken so as not to unnecessarily damage important equipment.

**15.0818 Plant Personnel:**

Plant personnel shall not be used to combat fires. Plant personnel can transport equipment and provide valuable information to Fire Department personnel regarding a fire in their plant.

**15.0819 Safety Procedures - Rolled Paper Stock Storage:**

A number of industrial properties store large, heavily stacked rolled paper. EXTREME CAUTION should be utilized when operating in such an area. If the rolls have become wet, they may topple and crush items (people) below. Consideration and evaluation must take place immediately on whether interior operations can safely take place. Un-staffed ground monitors should be utilized if interior offensive attacks may jeopardize the safety of firefighters.

**15.0820 Rescue:**

Rescue of a known life is the #1 Priority. A primary search should be conducted immediately in most cases WITH a charged hoseline. With larger industrial properties this may be impractical. It may be more beneficial to use a search rope in place of the hoseline so crews have a lifeline to the exterior. It is also imperative that a handline be stretched to the seat of the fire by the first arriving engine in an attempt to stop the forward progress of the fire. This will facilitate the rescue effort and lessen the danger to the occupants. If the occupants are visible from the exterior of the building, an attempt should be made to rescue them with the use of ground ladders. If staffing permits, the rescue should be carried out while a handline is advanced to the seat of the fire. Members advancing the handline to the fire area can search that area as well as extinguishing or controlling the fire.

Ladders should be used (including aerial) to conduct the primary search as soon as possible and to rescue any occupants trapped by the fire. Search priorities shall be as follows:

- a. Fire area
- b. Floor above fire
- c. Top floor
- d. Floors in between

Any emergency medical care should be provided to the occupants of the residence as soon as possible (by First Responder or Ambulance personnel), such as cardiopulmonary resuscitation. There should be no hesitation in requesting emergency traffic for an ambulance to treat occupants, or for standing by for possible use at a later time. Any working fire requires the presence of an ambulance on location.

**15.0821 Primary Search:**

A primary search must be performed at every fire situation, whether fire is showing or not. The only difference is the number of firefighters assigned this task by the Incident Commander. In nothing showing situations, the primary search can be assigned to two firefighters, however, if a fire is located, more firefighters must be assigned to the task. The crew performing search and rescue must be equipped with a radio to keep in constant communication with the Incident Commander.

When conditions indicate there is a fire or the first arriving company reports a fire in their size-up, a primary search must be performed to locate and remove endangered occupants, or to verify that civilians have escaped the fire. The fire attack crew(s) can perform the primary search of the immediate fire area while the truck or rescue company personnel begin the primary search on the floor immediately above the fire. All searches must be made using a search pattern indicated in Section 15.0510. If time and staffing permits, the search and rescue crews operating above the fire should do so with the protection of a handline. This will provide protection for the firefighters

performing this task. Tagline/rescue rope should be used as a minimum protection device to lead search personnel to the way out of the building. This will provide protection for the firefighters performing this task. Firefighters performing the primary search must have forcible entry tools with them to force open locked doors or to aid the escape of the firefighter should he/she become trapped in a building or room.

Victims are often overcome attempting to escape the fire. For this reason, firefighters performing the primary search will commonly find victims next to doors and windows. Firefighters should pay close attention for signs of trapped or injured occupants. Coughing, moaning, or cries for help indicate people may have not escaped the fire. If occupants or victims are located, this should be communicated to the Incident Commander immediately. Victims should be removed via the closet exit if possible. Ladders should be used only if passage down the stairway is not possible

Firefighters should if possible mark or in some way identify the rooms or areas that have been searched. This may be done by placing a piece of furniture or other article that would not be normally found in that location in the doorway or entry to the searched area.

**15.0822 Secondary Search:**

As soon as possible a secondary search shall be made to verify that there are no occupants in the building. The results of this search shall be transmitted to the Incident Commander.

**15.0823 Forcible Entry:**

Look for a Knox Box! Location should be identified in the map book. Members of the ladder or rescue truck should be prepared to force open doors, locked gates, windows, etc. to provide for access to the building. A variety of forcible entry tools should be carried by truck/rescue company personnel.

**15.0824 Property Conservation:**

Property conservation measures should begin as soon as possible to reduce the property loss by fire, heat, and smoke. Property conservation efforts are to be performed by personnel when staffing levels and conditions permit salvage operations to begin. Salvage covers should be used to protect valuables and to prevent further damage by water and smoke.

**15.0825 Overhaul:**

When the fire has been confined and/or declared under control, overhaul efforts should begin. At least one handline shall remain in service during overhaul. Overhaul will be continued at the

discretion of the incident commander. Ladder/Rescue company personnel will assist engine company personnel with the task of overhaul. Ladder/Rescue company personnel must pull walls and ceilings that have been exposed to fire to prevent a rekindle. Use of the thermal imaging camera is essential during overhaul to spot hidden fire without having to open all the walls and ceilings within the structure. Consider starting investigation before overhaul. This may limit the destruction of evidence during overhaul.

**15.0826 Safety:**

The safety of fire department personnel is of the utmost concern. No member shall be permitted to take part in fire suppression activities unless that person is wearing full protective clothing including self-contained breathing apparatus (SCBA). SCBAs shall be worn at all times on the interior of the building during fire suppression activities—including during overhaul. SCBAs shall be worn until it can be determined that the level of carbon monoxide in the structure is at a safe level. At that time the Incident Commander can grant permission to the operating crews to remove their SCBAs.

All injuries to firefighters SHALL be reported immediately to the company officer and required medical attention given. Personnel Accountability and an Ambulance Standby are particularly important during an industrial property fire (especially if mutual aid is utilized).

Because of Known and Unknown hazards in Industrial Properties extra caution should be taken at industrial properties! Lock-out/tag-out procedures shall be followed.

**15.0827 Crew Units:**

Crews are to stay together. If their Company Officer is assigned another detail, a crew leader will be first designated. It is imperative that units operate as teams at industrial property incidents!

**15.0828 Greater Alarms:**

Depending on life hazards and the fire situation present, additional Engine and Ladder Companies should seriously be considered for Staging.

**15.0829 Safety Procedures – Paper Mill 249 North Lake Street**

Should the Department respond and encounter a fire in the hoods of steam heated Yankee dryers, the following guideline should be followed:

Steam heated dryers contain many safety devices to protect our equipment and personnel during normal operation, there is no way to protect them from the thermal abuse caused by excessive or

rapid differential cooling of the dryer shell surfaces by hoses or streams of water. To douse a HOT dryer shell or head with COLD water results in a sudden thermal shock that creates extremely high stress in the shell. The result may be shell failure or explosion.

For everyone's protection in extinguishing fires at or near the dryer, it is recommended that a dry chemical powder extinguisher be used. If water is used, it is recommended that the hose lines are equipped with spray or fog type nozzles. Minimize the water reaching any part of the dryer, and if possible, keep the dryer rotating. If a fire hose is used on a dryer, move the spray around; **DO NOT HOLD IT IN ONE PLACE!** Maintain a uniform coverage at all times. (See figure below for machine diagram.)

