



**Tuscola Fire Department**  
**Standard Operating Procedures**

# TUSCOLA FIRE DEPARTMENT

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## TUSCOLA FIRE DEPARTMENT

## S.O.P. #100

Effective Date: 12-30-94

Updated:

Reviewed: 2013

Approved: Steve L. Hettinger  
Chief

### GENERAL STATEMENT

- Tuscola Fire Department Standard Operating Procedures (S.O.Ps) are intended to be a general guide only and may have to be altered if circumstances dictate.
- The goal of the Tuscola Fire Department is to protect life and property from fire, disaster, accident, or any other emergency situation we are summoned to mitigate or assist with, to the best of our abilities, and within the scope of our training. Although firefighting is inherently dangerous, SAFETY of all personnel will always be the first priority, and at no time shall department personnel take unnecessary risks in performing their duties.
- It is the responsibility of all fire department personnel, at all times, on and off the fire ground, to conduct themselves in a manner fitting their position on the fire department. The public expects and deserves it.

## TUSCOLA FIRE DEPARTMENT

### S.O.P. #101

Effective Date: 12-30-94

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Approved: Steve L. Hettinger  
Chief

### DEPARTMENTAL MEETINGS

- All department meetings will be considered training meetings. Subject and training times should be entered in your training jacket.
- Every member is expected to be present at all meetings unless there is a valid reason for missing. Your squad officer should be contacted ahead of time with this information if possible.
- Frequent absence from meetings will be reviewed periodically by the Chief and discussed with the department member. (Participation is essential. Members frequently absent from meetings are uninformed, untrained, and therefore of little value, possibly even harmful to the department, and may have to be replaced.)
- Regular meeting nights will be the 1<sup>st</sup> and 3<sup>rd</sup> Mondays of each month at 7:00 p.m.

**COMMUNICATIONS**

**RADIOS**

- Our radio frequency is 158.940 and FCC station call letters are KBS-983.
- FCC regulations shall be followed when using radios.
- All radios shall be used in a professional manner and use these basic steps whenever possible.
  - Sender calls the receiver, e.g. "FC1 from FC3"
  - Receiver acknowledges, e.g. "this is FC1, go ahead"
  - Sender transmits a clear concise message. e.g. "we have heavy smoke showing in the basement"
  - Receiver then acknowledges the Sender, and may need to do so by repeating the message back, e.g. "FC3, I understand, you have heavy smoke showing in the basement"
- Common English should be used on the radio whenever possible.
- When leaving the station, each apparatus shall identify itself as responding.
- Each officer, when in service after a fire page should communicate he is in route.
- First officer on scene should:
  - communicate his arrival, and that he is assuming command to dispatch
  - give a brief size up
  - determine resources needed
  - communicate initial strategy and tactics
- All personnel shall carry their pager at all times.
- The fire radio paging system will be tested at 6:00 P.M. daily. Each member is responsible for listening to ensure his pager is operating properly.

**ON THE FIRE-GROUND**

- Officers should keep the incident commander informed of all aspects of the fire-ground and the fire's progress.
- Firefighters should keep the nearest officer informed of the same.
- Radio traffic from the interior of a fire building takes precedence over all other radio traffic.
- A signal to **GET OUT** of a fire building because of dangerous conditions will be **repeated blasts from an apparatus air horn** until all firefighters are accounted for. **GET OUT** means leave all equipment and hose lines behind.

**OFFICER RADIO CALL NUMBERS**

- SEE CURRENT ROSTER, EXAMPLE ATTACHED

**DEPARTMENT MEMBER TELEPHONE NUMBERS**

- SEE CURRENT ROSTER, EXAMPLE ATTACHED

## TUSCOLA FIRE DEPARTMENT

## S.O.P. #103

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Chief

## PERSONAL PROTECTIVE CLOTHING, EQUIPMENT (PPE)

### PURPOSE

To establish the proper use and care of PPE and to insure the safety of personnel at all times.

### PROCEDURE

- All department personnel will be issued:
  - Radio / pager
  - Helmet
  - Safety glasses
  - Nomex hood
  - SCBA mask
  - Gloves
  - Bunker pants and coat
  - Coveralls
  - ANSI 107 Class II Safety Vest
  - Boots
  - Flashlight
- Equipment on the apparatus
  - SCBA
  - SABA
  - Confined Space and Rope rescue helmets
  - EMS PPE
  - Haz Mat level A, B, and C, PPE and equipment
  - Thermal Imaging Camera
  - High voltage electrical PPE
- Each member is responsible for taking care of issued equipment.
- On the fire-ground, and during all training, appropriate level of PPE for the type of incident, and your assigned location, should be utilized at all times, (*If uncertain, the next higher level of PPE should be chosen*).
- **The minimum PPE on ANY call will be bunker gear OR coveralls, and on the roadway - ANSI 107 Class II Safety Vest.**

***Exception 1:*** *At the discretion of an officer, some parts of the PPE may be removed for certain operations. If uncertain, the next higher level of PPE should be chosen.*

**Exception 2: ANSI vests do not need to be worn:**

- a) *When required to don structural PPE and SCBA to work in close proximity to a source of heat such as during suppression of a vehicle fire, or*
- b) *When required to don hazardous material personal protective equipment to avoid potential exposure to chemicals or other contaminants, or*
- c) *When required to don technical rescue PPE and/or equipment for a technical rescue incident such as extrication, high or low-angle rope rescue, swift water rescue, etc.*

*All members on-scene performing duties or involved in activities other than those listed above, are required to don ANSI-compliant vests when working in or near moving traffic. Members directly involved in source of heat, chemical, or technical rescue operations as listed above, who complete those activities, are required to don ANSI-compliant vests once they leave the immediate area of those operations.*

**For SCBA, SABA, Technical Rescue, Haz Mat, EMS, and other PPE carried on the apparatus – see specific S.O.P.**



**UNIFORMS**

**PURPOSE**

- To set guidelines and standards for the uniform of the Tuscola Fire Dept. The uniform represents the organization and what it stands for and it should be worn proudly and professionally.

**UNIFORM ISSUE**

- Uniform shirts, tie, TFD patch, American flag patch, and badge will be issued to each member. All other parts of the uniform described above are recommended although optional and will be the responsibility of the individual firefighter. When ordering, specifications for these parts are available from the Chief of the department and should be secured.

**PROCEDURE**

**SHIRT**

- The TFD patch goes on the left shoulder 1.5 to 1.75 inches down from the shoulder seam.
- The American flag patch goes on the right shoulder 1.5 to 1.75 inches down from the shoulder seam.
- Name bars go just above the right pocket with the bottom of the name bar touching the top seam of the right pocket flap.
- Collar rank insignias go in the middle of the collar {V} approximately half way between the neck seam and point of the collar.
- Any other ornaments such as CPR pins should be placed on the right pocket flap and approved by the Chief before wearing.

**PANTS**

- Dark navy blue with a black belt

**TIE**

- Dark navy blue, tie clasp optional

**SHOES**

- Black lace up

**Note: There will be times when the need for more formal and respectful appearance is deemed necessary. Therefore there will be two designations of uniform wear, Class A and Class B. At no time will blue jeans be worn with the uniform shirt.**

#### CLASS A

- All parts of the uniform described above, with long sleeve shirt and tie. If you have a dress coat it should be worn when appropriate. **Dress Coat** shall be a single breasted, "Flying Cross brand by Fechheimer" 38800, or equivalent, approved by the Chief, with gold or silver FD buttons and gold braid on the sleeve per rank in the department. Both shoulders of the dress coat should bear the TFD patch. Badge, collar rank insignia, and name bar shall be displayed on the coat in the same manner as the shirt.  
**Note: Long sleeve shirt is always worn with a tie.**

#### CLASS B

- All parts of the uniform described above with a short sleeve shirt, open collar, white T-shirt, and no tie.  
**Note: Short sleeve shirt is never worn with a tie.**

## **FIREFIGHTER DEATH / FUNERAL**

### **PURPOSE**

- To establish procedures that will ensure proper support and care for a firefighter's family after the death of a member of the Tuscola Fire Department. To ensure that proper honors are rendered to the deceased firefighter.

### **CLASSIFICATIONS**

- Class I - Service for an active member of the Tuscola Fire Department.
- Class II - Service for a retiree of the Tuscola Fire Department.

### **NOTIFICATION**

#### Class I (Active Members)

- If the death is a line of duty death; the incident commander on duty at the time of the incident is responsible for contacting fire chief and chaplain. In the case of an off duty death; any department member that has knowledge of a fellow firefighter death is encouraged to notify the department through the chief or chaplain.

#### Class II (Retiree)

- The fire chief or chaplain will contact the family upon knowledge of a deceased retiree in offering department services.

### **OFFICIAL ANNOUNCEMENT**

The official announcement by the department will be made by the Chief or Chaplain.

# **GUIDELINES FOR SERVICES TO BE PROVIDED TO FAMILY BY THE DEPARTMENT: IF DESIRED BY THE FAMILY**

## Class I (Active Member)

### Prior to Services

- Services of Department Chaplain offered to family.
- Services of Department Chief or Chaplain offered to assist family in making arrangements.
- Arrangement of Pall Bearers in Class "A" uniforms.
- Arrangement of Police and or Fire apparatus for processional to cemetery.
- Arrange for flower arrangement from TFD to be sent to the funeral home.

### Chapel/Church Service

- Honor Guard at Casket (by members of the Tuscola Fire Department during all viewing and visitation at funeral home and leading up to the funeral services.
- Firefighter walk through by department.
- Fire Apparatus with black drapes and members gear on truck for processional to graveside (as well as standing fast at the funeral home during all viewing and visitation).
- Color Guard at Service.
- Pipers and Drum Corps at service.

### Graveside Service

- Apparatus to bear casket if in the line of duty death, and if approved by family.
- Arched Aerial Ladders with Hanging Flag at entrance to cemetery, or other appropriate location.
- Fire Apparatus at graveside
- Color Guard
- Services of Department Chaplain, if family wishes
- Department Honors/Ceremony

- Flag folding and presentation
- Pipers and Drum Corps
- Bugler to play “Taps” at cemetery

### Class II (Retired Members)

The following list of items will be provided, only upon request of the family:

#### Prior to Services

- Service of Department of Chaplain available to family.
- Arrangement of Pall Bearers in Class “A” uniforms.
- Arrangement of Police or Fire Escort for processional to cemetery.
- Chapel/Church Service
- Honor Guard at Casket
- Color Guard at service.
- Uniformed Personnel at service.
- Uniformed Personnel to serve as Pall Bearers.
- Pipers and Drum Corps. at service.
- Arrange for flower arrangement from TFD to be sent to the funeral home.

#### Graveside Service

- Services of Department Chaplain Available
- Department Honors/Ceremony
- Flag folding and presentation
- Pipers and Drum Corps.

## **GUIDELINES FOR THE FUNERAL/MEMORIAL SERVICE**

### Class I (Active Member) & Class II (Retired Member)

- All available department personnel will attend in full class “A” uniform.
- All department members will wear a black band over their badges from the time the death is announced until 24 hours after finish of service, and up to one week after death. All department flags will fly at half-staff from the time the death is announced until 24 hours after the finish of service, and up to one week after death.
- All uniformed personnel will remain covered (wearing hat) while outdoors, except during prayers, and uncovered indoors.
- All Honor Guard members will be covered (wearing hat) at all times during their performance of their duties.
- Seating will be reserved such that the family is nearest the casket followed by the Pall Bearers, the department officers, followed by all other members of the Tuscola Fire Department. Following that will be all visiting uniformed firefighters and friends of the deceased.

## **GUIDELINES FOR PROCESSIONAL TO, AND ASSEMBLY AT GRAVESITE**

### Class I (Active members)

#### Vehicular Procession

- It is the responsibility of the Department Chief or Chaplain to ensure that the order for the vehicular procession is appropriate, as follows, and that the Piper, Bugler, and Color Guard are standing by the cemetery.
- Lead Car provided by the funeral home, containing appropriate Clergy and Department Chaplain.
- Apparatus/Funeral Coach, (engine may be used in place of funeral coach) with Pall Bearers riding in apparatus, or immediately following family in one vehicle if funeral coach.
- Car or Limousine with Immediate Family.
- Fire Chief Car followed by officer cars and dignitary cars.
- Additional Home Department Apparatus.
- Visiting Department Apparatus.
- All other Home Department Personnel in personal vehicles.
- All other visiting Department Personnel in personal vehicles
- All other Miscellaneous Vehicles.

#### Assembly at Graveside

- Two crossed Aerial Ladders with a draped flag will be at the entrance to the cemetery (if possible or other location in route), so that the entire procession goes underneath them while entering the cemetery.
- The Piper and Bugler will be assembled approximately 100 yards from the gravesite.
- Fire Walk of Honor - the members of the home department shall line up on both sides of the path, in an organized fashion from the Coach/Apparatus to the graveside, approximately 10 feet apart with all visiting department firefighters lining up behind the front row of firefighters.

- Once the firefighters are appropriately assembled, the Color Guard will line up at the beginning of the Walk of Honor followed by the Clergy and Department Chaplain.
- The casket will be followed in order by the Immediate Family, the Fire Chief and Officers, and other dignitaries.
- Once the casket reaches the gravesite, the firefighters will move from their places in the Walk of Honor, to orderly line directly behind or to both sides of the family, who are to be seated directly in front of the casket.
- The appropriate Clergy/Department Chaplain then should step forward with the graveside message, which should include the 23<sup>rd</sup> Psalm, and Firefighters prayer, depending upon the wishes of the family.
- At the close of the graveside message, the Clergy/Department Chaplain will then commence with "Let us now pray." At this time, all are expected to remove and order their covers to their sides, and bow their heads in respect.
- Once Clergy/Department Chaplain has finished his prayer, all personnel will recover, Honor Guard will remove the flag from the casket, and fold it for presentation to the family.
- The flag will be passed from one member of the Honor Guard to the Chief.
- The Chief will then present the flag to the next of kin as he explains, "This flag is presented on behalf of a grateful Tuscola, as a small token of our appreciation for the honorable and faithful service, and great sacrifice of your loved one."
- The Tuscola Fire Chief or Senior Officer will present the graveside marker and have it placed near the headstone by another member of the Tuscola Fire Department.
- It is then appropriate for the Chief to read the following or similar farewell message or continue with a Bell Service at this time. "The members of the Tuscola Fire Department wish to thank \_\_\_\_\_ (name and rank) for his/her \_\_\_\_\_ # of years of service to the citizens of Tuscola. Although you are gone, you will never be forgotten.



## BELL RINGING CEREMONY

- And now he must answer his last alarm PAUSE sound the alarm PAUSE ALARM. The alarm has sounded. May God welcome him into his kingdom. May his soul now rest in peace.
- At the conclusion of this, the bugler will begin to play “Taps”.
- At the conclusion of “Taps” the firefighters will stand at attention until the family has begun to depart. After the family has departed, the firefighters are dismissed and the services are concluded.

### Class II (Retired members)

The guidelines listed above for Class I (active members) will apply to Class II (retired members) depending upon the wishes of the family.

## MISCELLANEOUS FORMS

The following forms will be made available to members of the Tuscola Fire Department. Upon completion, these forms will be sealed in an individual envelope for that firefighter and retained in confidence by the Tuscola Fire Department until that firefighter's death occurs.

- Funeral Coordination Checklists
- Survivor Information Form
  - Confidential Information Form

## TUSCOLA FIRE DEPARTMENT

### S.O.P. #200

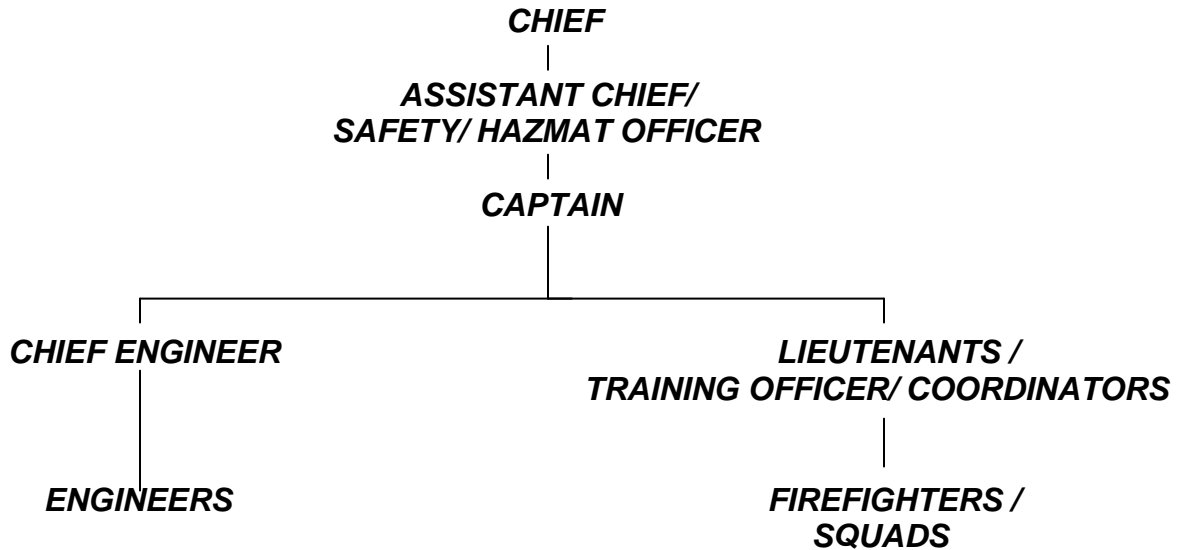
Effective Date: 12-30-94

Updated: Reviewed: 2013

Approved: Steve L. Hettinger  
Chief

### Budget and Expenditures

- The budget is the responsibility of the Chief. If you have suggestions, submit them in writing for consideration.
- All expenditures should be cleared through the Chief before purchase.



**COMMAND STRUCTURE**

- In the absence of the Chief, the Assistant Chief is in command. In the absence of both the Chief and the Assistant Chief, the Captain is in command, followed by the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> Lieutenant, the Chief Engineer, Rescue Coordinator, and the EMS Coordinator.
- The first arriving officer is the incident commander until he personally transfers command to a ranking officer. First arriving officer should initiate firefighting and or rescue procedures.
- In large-scale incidents, the incident command system will be used. For incident command system procedure refer to SOP #404, Operations.

## TUSCOLA FIRE DEPARTMENT

## S.O.P. #202

Effective Date: 12-30-94

Updated: 7-03-06 Reviewed: 2013

Approved: Steve L. Hettinger  
Chief

### DUTY ROSTERS

#### WEEKEND DUTY

- Weekend duty will consist of one squad: 1 officer, 1 engineer, and assigned firefighters, as per current duty roster (Example attached).
- On duty rosters, under squads, the officer is listed first, the engineer second, driver third, and firefighters last.
- On your duty weekend, you and your squad will remain in the city from 6:00 p.m. Friday to 6:00 p.m. Sunday and respond to all calls. (You may trade or get someone to cover for you, but that person must be of comparable rank or position.)
- The duty squad is responsible for all calls during their weekend shift

#### FIRE-HOUSE CLEAN-UP

- Will be by current duty roster and squads. (This is not the squad officers sole responsibility, so squad members should check with him and find time to help. – See Attachment

## TUSCOLA FIRE DEPARTMENT

## S.O.P. #203

Effective Date: 2-16-95

Updated: 4-20-99, 5-15-06, 11-6-06,  
12-15-06, 2-11-08

Reviewed: 2013

Approved: Steve L. Hettinger  
Chief

### **OFFICERS, ENGINEERS, & FIREFIGHTERS: NON-FIRE GROUND DUTIES**

#### **PURPOSE**

- Duties of officers off the fire ground during non-emergency response situations. Officers are responsible to the Chief for their duties according to this S.O.P. and where any other responsibility is indicated in any other S.O.P.
- Engineers and firefighters are responsible to their Squad Officer for assigned duties.

#### **PROCEDURE**

##### **ALL OFFICERS and ENGINEERS**

- Maintain records of equipment and maintenance of the equipment you are charged with. Maintain records of procedures and reporting you are charged with. The preferred method is the fire department computer software database, "Firehouse Software". All officers are responsible for ensuring that the Engineers complete incident reports and that are entered in the department's computer data-base, "Firehouse Software". EMS reports should be completed by the first responder making FIRST contact with a patient.

##### **CHIEF**

- Serve as the commanding officer of the department.
- Prepare a yearly budget and oversee expenditures.
- Inspections of buildings for life safety, building, and fire codes.

##### **ASSISTANT CHIEF**

- Act as Chief of the Department in the absence of the Chief
- Receiving and filing all SARA TITLE III and State Fire Marshall inspection reports
- All monitoring meters and their maintenance to insure good working order at all times.
- Serve as HAZARDOUS MATERIALS OFFICER and SAFETY OFFICER (see below).

##### **HAZARDOUS MATERIALS OFFICER**

- Creating and administering a haz mat response program.
- All aspects of the haz mat program as indicated in S.O.P. 413.
- Responsible for equipment involved in haz mat response.

##### **SAFETY OFFICER**

- Creating and administering a safety program for the Tuscola Fire Dept.

- All aspects of the safety program as indicated in S.O.P. #300's. Coordinate with other officers and their areas of responsibility.
- Administer with the assistance of the SCBA officer, and the EMS officer, the department's "Respiratory Protection" program.
- Responsible for processing all injury reports, and transmitting those to the city Clerk, and follow-up monitoring of injured employee.

#### CHIEF ENGINEER

- Maintenance of all department apparatus to insure that all apparatus is in good working order, ready to respond to emergency situations at all times, and all aspects of apparatus maintenance according to S.O.P. #600's.
- Maintenance and testing of all hose according to S.O.P. #505.
- Provide annual pump tests and semi annual aerial test.
- Training (in conjunction with the training officer) and coordination of all engineers of the department.

#### CAPTAIN

- Maintain all radio equipment of the department; pagers, batteries, mobiles, portables, encoders, antennas, outdoor warning siren system.
- Coordinate radio maintenance program to insure all radio equipment is in good working order at all times.
- Update frequencies and programming of radios as needed to insure adequate communications.
- Insure that all required radio licenses are obtained and maintained.

#### TRAINING OFFICER

- Creating and administering a training program for the department.
- Providing for training in all subjects requested by the Chief.
- Coordinating all training with other activities the Chief may have scheduled for the department.
- All aspects of the training program as indicated in S.O.P. #700's.

### **LIEUTENANTS DUTIES AS ASSIGNED BY THE CHIEF OF THE DEPT.**

#### LIEUTENANT

- All equipment of the department, **except** radios, monitoring meters, apparatus, hoses, rescue and technical rescue equipment (except gasoline engines on power units), Turnout gear, and SCBA (and associated breathing air equipment)
- Coordinate equipment maintenance to insure good working condition of equipment at all times.

#### LIEUTENANT

- Self-Contained Breathing Apparatus (SCBA), Supplied Air Breathing Apparatus (SABA), Breathing Air Compressor, air operated equipment, and all Air Bottles.
  - Coordinate SCBA, SABA, Air Compressor, maintenance checks, air quality tests, air bottle hydrostatic testing, and any other aspects of SCBA maintenance to insure proper working order of this equipment at all times (as indicated in S.O.P. #503).

- Assist with administering the “Respiratory Protection”.
- Oversee all personnel turnout gear.

#### LIEUTENANT

- Completing incident reports at all emergency responses of the department and reporting to the city for billing.
- Required State incident reporting.
- All records of the department including member attendance at fire calls and training meetings, and any other records as needed and directed by the Chief of the Department.
  - Prepare an accounting each year of the above for the purpose of payroll.
- Oversee the department’s computers and software database.

#### EMS COORDINATOR

- Coordinate all EMT’s and First Responders in all EMS activities of the department and maintenance of all EMS equipment.
- Create and administer, in coordination with the department’s training officer, an EMS training program.
- Coordinate the Tuscola Fire Dept. affiliation with Carle and Arrow Ambulance.
- Assist with administering the “Respiratory Protection”.

#### RESCUE OFFICER

- Coordinate all aspects of rescue for the department, including maintenance of rescue equipment (coordinate with the equipment officer for gasoline operated equipment).
- Create and administer, in coordination with the departments training officer, a rescue-training program.
- Coordinate the Tuscola Fire Dept. relationship with industry in the area and their confined space rescue programs.

#### FIREFIGHTERS

- Firefighters should carry out duties and tasks assigned by their Squad Officer. Officers should enlist their squad members, the Chief Engineer, his engineers, to help carry out their duties and responsibilities.
- All firefighters that are first responders are responsible for completing an EMS report if they make FIRST contact with a patient.

#### FIRE HOUSE (NORTH & SOUTH STATIONS)

- Clean up is by assigned monthly according to S.O.P. #202.

## ON – SCENE SAFETY OFFICER

### PURPOSE

- The incident Commander is responsible for the safety of all personnel at an emergency incident. The incident Commander must recognize incidents and activities that create an unusual risk to personnel and appoint an on-scene safety officer if span of control dictates it.

### PROCEDURE

#### SAFETY

- A basic level of safety is always in effect, even at the most routine situations
- Safety of personnel is a primary consideration and is written in to each standard operating procedure.
- All TFD Officers, Engineers, and Firefighters are responsible for safety and complying with operational and safety procedures.

#### INCIDENT COMMANDERS RESPONSIBILITY

- The I.C. is responsible for identifying situations where an on-scene safety officer is necessary:
  1. During mutual-aid fires
  2. Hazardous materials incidents
  3. Specialized rescue incidents
  4. Any high risk to personnel incident

**Note: The “Safety Officer” is the on-scene safety officer when on the scene.**

#### ON-SCENE SAFETY OFFICER QUALIFICATIONS

1. Be an experienced FIRE GROUND officer
2. Be able to identify dangerous situations
3. Understand the safety officer’s role

#### ON-SCENE SAFETY OFFICER DUTIES

1. Be assigned to the position by the I.C.
2. Be briefed by the I.C. on Fire Ground operation
3. Be an advisor to the I.C. and a consultant to other officers
4. Not be assigned any other fire ground assignment
5. Be mobile and observe all aspects of the fire ground
6. Report non-imminent, hazardous situation to the I.C.
7. Have the authority to alter, suspend, or terminate any activities judged to involve an **IMMINENT HAZARD** and then notify the I.C.



## SAFE WINTER OPERATIONS

### **PURPOSE**

- With the potential for severe winter elements, it is necessary to take extra care for the health and safety of personnel and the maintenance of equipment.

### **PROCEDURES**

#### WINTER CLOTHING

- The possibility of working extended periods of time in cold weather, and the hazards of exposure, make it necessary to dress properly and maintain needed attire. Suggested guidelines include:
  1. Liners in turnout coats and bunker pants
  2. Liner in helmet (with Nomex hood)
  3. Extra gloves
- Optional Clothing
  1. Neck scarf
  2. Insulated coveralls (under bunker pants)
  3. Spare change of socks
  4. Hand towel carried inside of turnout coat (for drying face)

#### FIRE-GROUND PRECAUTIONS

- Beware of walking across lawns or open areas since snow may hide ditches, holes, curbs, etc.
- After removing face piece (SCBA) dry face to prevent freezing
- Tighten leaking couplings to prevent unnecessary formation of ice
- Permit nozzles to run (slightly cracked open) when not in use to prevent freezing
- Beware of slippery areas around apparatus due to ice formation (leaking connections, etc.)
- Beware of the potential for unforeseen building collapse due to snow and ice loading on roofs
- It may be necessary to utilize vehicle exhaust to thaw frozen nozzles and couplings

#### APPARATUS OPERATIONS

- Emergency driving and apparatus operations are very hazardous during adverse weather conditions. Special precaution should be taken:
  1. Braking distance may increase three to ten times for both emergency vehicles and other vehicles
  2. Fire department personnel may have to maneuver around stalled and/or abandoned vehicles along response routes
  3. To safely back apparatus, it may become necessary to position an additional spotter beside the driver's side of the cab when ice, steam, or frost obscures the mirrors

#### 4. Precautions:

- a. Circulate booster tanks through pump to prevent freezing
- b. When the temperature drops well below freezing, inspect all intakes for ice and remove all discharge caps to check for ice between discharge valves and discharge caps
- c. When operating at an incident, you may have to cover the cab to protect against heavy ice buildup on the windshield

#### APPARATUS MAINTENANCE

- Apparatus air tanks should be bled more frequently with the increased condensation of cold weather
- On return to station, use water sparingly to wash down underside of apparatus during very cold (near zero) weather to avoid frozen steering gears, brakes, etc.
- Drain all discharge ports after any pumping operation by removing caps and wiping valves dry. Open main drain on pump.

#### CARE OF HOSE

- Break couplings, drain, and roll hose as soon as possible at the fire scene
- Forcibly bending or dragging can permanently damage frozen hose. Carefully gather frozen hose and place on top of apparatus in hose bed to transport to station
- Booster line – permit nozzle to run into booster tank

**INFECTION CONTROL STANDARD / PERSONAL PROTECTIVE EQUIPMENT**

**PURPOSE**

- To supplement established guidelines, procedures, and to clarify Tuscola Fire Department Policies concerning infections, disease, and control with the use of Personal Protective Clothing.

**PROCEDURES**

- Exposure Protection Equipment is to be used as directed or, with employee discretion, any time there is a potential for exposure to Air / Blood-borne Pathogens.
- Disposable latex gloves will be worn during any patient contact when the potential exists for contact with blood, body fluids, or other infectious material. All members should carry two pair of disposable gloves in their turnout coats.
- The department is responsible for the supply, repair, replacement, and safe disposal of Infection Control Personal Protective Equipment (P.P.E.)
- The Chief / Safety Officer will determine proper stock supply levels of P.P.E, both for station and for the response vehicles.
- Available P.P.E. (in addition to P.P.E. for structural firefighting & coveralls) will include disposable gloves, rubber gloves (for disinfection purposes), face masks, eye protectors, full face shields, Sharps containers, and leak-proof disposal bags (red Bio-hazard bags).
- Disposable gloves will be constructed of latex, rather than plastic. While both types provide equal protection, latex is more durable during on-scene emergencies.
- Sharps containers will be closeable, puncture resistant, and leak-proof. Sharps containers will be color-coded (red), labeled as Biohazard.
- Pocket mask with one-way valve used for CPR (4) will be carried on Rescue Engine 93.
- Emergency response often is unpredictable and uncontrollable. While blood is the single most important source of HIV and HBV infection, in the field it is safest to assume that all body fluids are infectious. For this reason, Personal Protective Equipment will be chosen to provide barrier protection against all body fluids.
- In general, members should select P.P.E. appropriate to the potential for spill, splash, or exposure to body fluids. No S.O.P. or P.P.E. ensemble can cover all situations. COMMON SENSE MUST BE USED when in doubt. Select maximal rather than minimal P.P.E.
- Gloves will be replaced as soon as possible when soiled, torn, or punctured. Wash hands after glove removal

**SEE ATTACHMENTS**

**BLOODBORNE PATHOGEN PROTECTION PROGRAM**

## TUSCOLA FIRE DEPARTMENT

## S.O.P. #303

Effective Date: 02-16-95

Updated: Reviewed: 2013

Approved: Steve L. Hettinger

Chief

## REPORTS OF INJURY

### PURPOSE

- The purpose of the accident report forms and the officer's investigation of the accident is to provide the Chief of the department, and the Safety Officer, with a permanent record of all facts concerning accidents, injuries, and occupational diseases of members of the Tuscola Fire Department.

### PROCEDURE

- Such information is necessary and useful as aid in:
  - The preparation of compensation claims and other forms required by the compensation insurance carriers or government agencies
- The prevention of accidents by providing the necessary data:
  - Isolate causes of accidents
  - Judge the effectiveness of remedial action taken
  - Disclose areas where adequate supervision and training are lacking
  - Uncover hazards and unsafe methods or practices
  - Prepare accident analysis and statistics

**Note: All reports should be made within 24 hours and no more than 48 hours.**

- Employee's Report of Injury
  - The purpose of the Employee's Report of Injury is to get proper medical attention for the employee and for the Chief of the department to see if there is a personal protection, and /or action, that needs to be taken to prevent future accidents.
  - For any injury, the Employee's Report of Injury should be filled out no later than 24 hours from the time of injury. The injured employee should retain a copy of the Employee's Report of Injury. The original being sent to the Chief of the department.
  - If further medical attention is required, the employee will be provided with a physician's report to be filled out by the physician and returned by the employee to the Chief of the department.
- Officer Guide to Accident Investigation
  - Definition of an Accident

When we hear or use the word "accident", we usually associate the fact with an act that resulted in injury to a person or persons. However, we should bear in mind that accidents do not necessarily have to result in

personal injury. Any unexpected occurrence that results in damage – whether it be to man, material, or machine – is an accident and should accordingly be investigated as thoroughly as one which results in personal injury.

- Purpose of Investigation

The purpose of any accident investigation is to discover the basic cause of the accident and to eliminate, or correct, the unsafe condition or unsafe practice which caused the accident

- Responsibility for Investigation

The responsibility for investigating accidents can be delegated to an individual or group, but experience tends to show that the most successful practice is to have the immediate officer responsible for the investigation

- Accidents to be Investigated

All accidents, including minor ones, should be investigated. The severity of the injury, or amount of damage, should not be the determining factor as to whether an accident is serious enough to investigate. To be effective, the investigation should be made promptly, within the same time frame as the accident occurred, using the Officer Report of Injury form, with a copy to the Chief of the department.

- Five-Step Investigation Plan

In order to deal more effectively with accidents resulting in personal injury, the following is a five-step plan, which should be used.

1. FIRST AID OR MEDICAL CARE—First concern should be to arrange for the First Aid or medical treatment for the person's injury
2. INVESTIGATION—As soon as the injured has been provided for, if such attention is necessary, and investigation of the accident should be made
3. DETERMINATION OF THE CAUSE—(using the Officer Report of Injury Form) In investigating and determining the causes of accidents, the person making the investigation should not give the impression that he/she is trying to place the blame for the accident. A good way to begin the investigation is to ask the injured person about his or her injury. The best results are obtained when the investigator gives the person the feeling that his or her help is needed to find the cause of the accident so that steps can be taken to prevent a similar occurrence happening to a fellow firefighter. After collecting all of the facts, it will then be possible to determine the cause of the accident. It must be remembered, however, that

accident causes vary. They can be classified generally as being caused by an unsafe physical condition, an unsafe act, or unsafe practices. **Note: See attached common unsafe acts and conditions**

4. CORRECTIVE ACTION—The next important step is to determine and apply corrective action. To apply corrective action requires more than telling a person to be careful. In accidents involving physical hazards, it is easy to specify the remedial action necessary to prevent a similar occurrence. However, most accidents occur as the result of unsafe acts or practices. In such cases, specific instruction to the person regarding the safe practices that should be followed must be given. Telling a person to be more careful is not helping the person. For instance, if a person suffered an injury as the result of an unsafe method of handling a tool, the officer should instruct the person in the safe method of handling the tool, not telling the person to be more careful when handling the tool.
5. FOLLOW-UP—It is important that corrective action be carried through to completion, and again, this is the responsibility of the officer or safety committee. **Note: In conclusion, it is granted that it will be difficult to completely eliminate all hazards; however, when hazards cannot be completely controlled or eliminated, alternate methods for increasing present protection should be considered and applied.**

# GUIDE TO ACCIDENT INVESTIGATION

## THE UNSAFE ACT GENERAL & DETAILED CLASSIFICATIONS

1. Operating or acting without authority or in an unauthorized location
2. Failure to warn, secure, or assure clear
3. Operating or acting at unsafe speed
4. Removing safety devices or making them inoperative
5. Using defective machinery, equipment, tools, materials, or vehicles
6. Using machinery, equipment, tools, materials, or vehicles unsafely
7. Failure to use approved protective equipment
8. Failure to use equipment provided or required for job
9. Improper loading, placing, or mixing
10. Improper lifting or carrying (including insecure grip)
11. Climbing, reaching, stretching, or otherwise taking unsafe bodily position
12. Adjusting, clearing jams, cleaning machinery in motion
13. Distracting, teasing, horseplay
14. Poor housekeeping (by injured employee)
15. Placing hands or feet in unsafe position with respect to machinery or objects being handled

## UNSAFE CONDITIONS

1. Improperly or inadequately guarded
2. Unguarded
3. Defective machines, equipment, tools, materials, or vehicles
4. Design, construction, or prescribed work method unsafe
5. Improper illumination
6. Improper ventilation
7. Improper dress or apparel
8. Poor housekeeping (by person other than injured employee)
9. Congested area
10. Necessary equipment or safety devices needed for job not immediately available

**TUSCOLA FIRE DEPARTMENT**  
**EMPLOYEE'S REPORT OF INJURY**

PART I

Injury Date\_\_\_\_\_

\_\_\_\_\_  
Name of Injured\_\_\_\_\_

Location\_\_\_\_\_ Age\_\_\_\_\_

Social Security Number\_\_\_\_\_ Birth Date\_\_\_\_\_

Date on Department\_\_\_\_\_

Witness or Person Notified of Injury\_\_\_\_\_

Date of Accident\_\_\_\_\_ Time Accident Occurred\_\_\_\_\_

Date Reported\_\_\_\_\_ Time Reported\_\_\_\_\_

Exact Location of Accident\_\_\_\_\_

Name of Immediate Officer\_\_\_\_\_

Statement of Injured Person (Give Details of Accident)\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature:\_\_\_\_\_

PART II

Treatment Administered (Include Specific Part of Body Injured)\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Doctor (If Needed)\_\_\_\_\_ Time\_\_\_\_\_ Date\_\_\_\_\_

Hospital\_\_\_\_\_

Signature:\_\_\_\_\_



**TUSCOLA FIRE DEPARTMENT**

**OFFICER'S REPORT OF INJURY**

PART III

Employee's Name \_\_\_\_\_

Title \_\_\_\_\_

Time of Accident \_\_\_\_\_ Date \_\_\_\_\_

**OFFICER'S DETAILED STATEMENT OF ACCIDENT**

Where \_\_\_\_\_

What Happened \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Why: Primary Cause(s) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Secondary Cause(s) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Recommendations to Prevent Recurrence/Corrective Action Taken

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature of Officer \_\_\_\_\_ Date of Report \_\_\_\_\_

**TUSCOLA FIRE DEPARTMENT**

**PHYSICIANS REPORT**

\_\_\_\_\_ Has been examined and found capable,  
incapable of performing his/her regular duties. (If incapable, how long will he/she be  
off? \_\_\_\_\_)

Nature of Injury \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Medication \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Type of Treatment (Sutures, X-rays, Etc.) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Released for Regular

Work: \_\_\_\_\_

Date \_\_\_\_\_

\_\_\_\_\_ Employee

\_\_\_\_\_ Physician

\_\_\_\_\_ Date

If any question, please call the number above.

Effective: 02-16-95

Updated: \_\_\_\_\_ Reviewed: 2013

Approved: Steve L. Hettinger  
Chief

**FIRE DEPARTMENT PERSONNEL SAFETY RESPONSIBILITIES**

**PURPOSE**

- Members of the Tuscola Fire & Rescue Department shall be responsible for the execution of all assigned duties in the safest manner possible.

**PROCEDURE**

**DUTIES AND RESPONSIBILITIES**

- Prime consideration will always be given to the safety of members of the department and the general public
- Fire Department personnel will handle property and equipment of the department with due care commensurate with the nature of the work and equipment employed
- It shall be the responsibility of anyone in a supervisory capacity to see that required personal protective equipment is utilized and safety rules and practices are observed
- It shall be the responsibility of all fire department personnel to immediately report to the chief officer any unsafe equipment, hazardous conditions, or unsafe working practices
- All injuries or accidents should immediately be reported to the chief officer
- Correct tools should be chosen for the execution of specific tasks to minimize the potential for mishap
- Before any fire department vehicles are set in motion, all persons riding on / in the vehicle will wear the safety restraint provided. The driver shall not move the vehicle until he is assured that all personnel are properly restrained.

**SAFETY COMMITTEE**

- The Safety Committee will be made up of the Fire Chief, Safety Officer, and Training Officer
- The Safety Committee is responsible for examining safety-related problems and seeking solutions to problems identified by members of the fire department
- The Safety Committee shall have the freedom and capability to generate their own goal and objectives

**GOALS OF THE SAFETY COMMITTEE**

- To improve the overall work environment and promote a greater concern for safety throughout the fire department
- To assist in the investigation of any unsafe practices or equipment brought to the committee's attention
- To actively seek out and assist in the evaluation of new and currently used products and procedures as they apply to the health and safety of fire department personnel

- To maintain and compile accurate records of injuries and equipment failure to identify specific problems or trends leading to injuries
- To comprehensively investigate and make recommendations to prevent recurrence of all serious injuries sustained by Tuscola Fire Department personnel
- To provide such other support as may be requested by the department

## TUSCOLA FIRE DEPARTMENT

## S.O.P. #400

Effective Date: 12-30-94

Updated: 06-01-99, 07-29-04, 6-29-06,  
9-7-06, 2-11-08, 4-8-10

Reviewed: 2013

Approved: Steve L. Hettinger  
Chief

## PERSONNEL AND APPARATUS RESPONSE

### PURPOSE

To guide personnel and apparatus response to emergency calls.

### PROCEDURE

The response outline below should act as a guideline to decide which personnel and what apparatus and equipment should respond to a particular emergency. The officer in charge can and should alter these guidelines when the emergency response requires it. **Covering the city, if personnel and equipment leave the city, should always be considered by the officer in charge.**

### RESPONSE

#### CITY FIRE CALLS

- STRUCTURE: Residential
  - All personnel should respond
  - Fire Command 1, Two Engines, Rescue 95 and Ladder 96: respond in that order
- STRUCTURE: Commercial
  - All personnel should respond
  - Fire Command 1, All apparatus

#### ALL CAR FIRE CALLS

- All personnel should respond
- Fire Command 1, Engine 93 and Rescue 95

***All car fires are potentially a Haz Mat and a rescue call***

#### RESCUE CALLS (See MUTUAL AID)

- All personnel should respond
- ALL RESCUE CALLS
  - Fire Command 1, Engine 93, Rescue 95
- CONFINED SPACE, TRENCH AND ROPE RESCUE CALLS
  - Fire Command 1, Engine 93, Rescue 95 and Ladder 96, City Vac-Truck for Trench rescue.

#### EMS CALLS

- EMS/Medical calls: by DAY or NIGHT assignments, plus all officers. (*Note: apparatus response SOP does not change*). This will be strictly for EMS/Medical calls only. If additional help is needed, call for a second alarm. If it involves rescue, and or fire, all personnel should respond on the first alarm.

- **Second Alarm:** All personnel (and apparatus according to SOPs), respond regardless of the type of call.

#### HAZ. MAT. (See MUTUAL AID)

- All personnel should respond. Fire Command 1, Rescue 95, Engine 93.

#### OUTSIDE THE CITY FIRE CALLS

- All personnel should respond, and the **officer in charge** should determine how best to provide coverage to protect the city.
  - During the response, at the scene, and during operations, **the officer in charge** should decide who can be spared, and send at least one engine company back to the city as soon as possible.
  - If the operation cannot spare personnel, the officer in charge should call dispatch and request a mutual aid stand by, or move up, and or additional help on scene.
  - When making these decisions, the officer in charge should consider all aspects of the operation, i. e., the distance from the city, estimated duration of the operation, weather conditions, how many personnel are needed or will be needed, and equipment needs.
- Fire Command 1, Two Engines, Rescue 95 respond. One engine should remain in the city.

#### MUTUAL AID FIRE CALLS

- All personnel report to South Station. The officer in charge should assign an engine company to remain in the city (Officer in charge should make sure that he has coverage for fire and rescue in the city)
- All other personnel can then respond to the mutual aid call. On the weekend, the duty squad is responsible for the call. Fire Command 1, Two Engines, Rescue 95 (Truck 99 and Ladder 96 if required). Mutual aid department may request less.

#### MUTUAL AID RESCUE and HAZ MAT CALLS

- Vehicle Accident Rescue Call – Fire Command 1, Engine 93 and Rescue 95 respond. Personnel respond to the scene. **(all vehicle rescue calls are potentially a Haz Mat and car fire call)**
- Technical Rescue, confined space, rope, trench, collapse, etc., respond the same as MUTUAL AID FIRE CALLS above.
- Haz Mat., respond the same as MUTUAL AID FIRE CALLS above.

#### EQUISTAR FIRE CALLS

- See Equistar S.O.P.

## TUSCOLA FIRE DEPARTMENT

## S.O.P. #401

Effective Date: 12-30-94

Updated: 04-09-99, 6-29-06, 5-6/13

Reviewed: 2013

Approved: \_\_\_\_\_  
Steve L. Hettinger  
Chief

## EQUISTAR RESPONSE

### EQUISTAR ALARM PROCESS

- Fire is seen
- Security gate is called
- Security sounds fire alarm
- Supplemental crew is paged (On call 7 days per week)
- Tuscola Fire Dept. is paged

### PERSONNEL RESPONSE

- All personnel should report to South Station
- Make a double roster of men responding:
  - One for Tuscola
  - One for Equistar Security gate upon arrival
- Ride on apparatus if possible, or car pool
- Once at Equistar: **STAY WITH THE APPARATUS**
- If driving yourself, park in parking lot, **NOT ALONG THE DRIVEWAY**. Then report to Center Gate and get on the roster.
- Note weather conditions (wind direction, storms, etc.)

### EQUIPMENT RESPONSE

- Engine 93
- Rescue 95
- Truck 99
- Ladder 96

**Notes: Engine 92 should remain in town.**

**Engine 93 have a gate key card.**

**Officer in charge:** This is an out of the city call and provisions for covering the city should be made per SOP 400

\*If dispatched, we will be escorted from the Center Gate.

## SEE ATTACHMENTS

**USE OF VEHICLE EMERGENCY WARNING LIGHTS AND SIRENS**

**PURPOSE**

- To Minimize risk of injury to fire department personnel and the public while reducing the risk of damage to fire department vehicles.

**PROCEDURE**

- The apparatus operator (Engineer) shall follow the following criteria for use of emergency warning systems on all fire department apparatus. Emergency status is defined as the use of emergency (red) lights and/or sirens.

**UNKNOWN REPORTS OF POSSIBLE FIRE**

- First to arrive Engine shall respond in an emergency status; all other apparatus shall respond in a non-emergency status as per S.O.P. #400. In the event of reported possible person(s) endangered all appropriate apparatus shall respond in an emergency status.

**REPORTED VEHICLE FIRES**

- First to arrive Engine and Rescue shall respond in an emergency status; all other apparatus shall respond in a non-emergency status. The apparatus responding shall be guided by S.O.P. #400.

**GRASS OR BRUSH FIRES**

- First to arrive Engine shall respond in an emergency status; all other apparatus shall respond in a non-emergency status. If information indicates there is a potential for extension to a dwelling or abnormal climactic conditions (high winds or dry conditions) all apparatus responding may respond in an emergency status. The apparatus responding shall be guided by S.O.P. #400.

**REPORTED STRUCTURE FIRES**

- All first alarm apparatus assigned per S.O.P. #400 shall respond in an emergency status when the report of fire is received by other than an automatic alarm. All additional apparatus responding shall respond in a non-emergency status until instructed otherwise.

**AUTOMATIC FIRE ALARMS (RESIDENTIAL)**

- First to arrive Engine and Rescue shall respond in an emergency status; other apparatus per S.O.P. #400 shall respond in a non-emergency status.

**AUTOMATIC FIRE ALARMS (COMMERCIAL)**

- First to arrive Engine shall respond in an emergency status; all other apparatus assigned per S.O.P. #400 shall respond in a non-emergency status.

**WASH DOWNS**

- No apparatus shall respond in an emergency status. In the event that there is a volatile chemical spill involved where there is risk of damage to persons, environment or property then the response



should be considered a hazardous material release or reported fire with the appropriate guidelines followed.

#### HAZARDOUS MATERIAL SPILLS OR RELEASES

- First to arrive Engine and Rescue shall respond in an emergency status; all other apparatus assigned to respond per S.O.P. #400 shall respond in a non-emergency status.

#### MUTUAL AID/AUTOMATIC AID (on-scene assistance)

- All requested apparatus shall respond in an emergency status as indicated by the request and/or and officer of the Tuscola Fire Department in charge. The apparatus responding shall be guided by S.O.P. #400.

#### MUTUAL AID/AUTOMATIC AID (response in lieu of the department of coverage)

- All apparatus shall respond as per the type of reported incident. The second to arrive Engine shall also respond in an emergency status on reports of fire until a confirmation of “no fire”. Also see S.O.P. #400 and #401.

#### MUTUAL AID/AUTOMATIC AID (move-up or coverage)

- No apparatus shall respond in an emergency status.

#### CONFINED SPACE RESCUE

- All apparatus assigned to respond on the first assignment as per S.O.P. #400 and #402 shall respond in an emergency status. Additional apparatus shall respond in a non-emergency status.

#### CARBON MONOXIDE ALARM

- First to arrive Engine and Rescue shall respond in an emergency status if information indicates there may be a life threat; all other responding apparatus per S.O.P. #400 shall respond in a non-emergency status.

\*Apparatus responding on the first assignment in a non-emergency status to all reports of fire except vehicle fire and grass/brush fire, shall upon confirmation of a fire that may be or continue to be a risk to lives, property or the environment shall change to an emergency status after this information is known. Additionally a Chief Officer or Command Officer may, at his/her discretion, upgrade the response to an emergency status at any time they feel it necessary for the preservation of life, property or the environment.

Apparatus emergency warning lights may be turned on for scene protection or vehicle protection upon arrival at a scene. This is not considered a “response” and is not covered in this specific procedure.

This S.O.P. does not cover the use of personal vehicle identification lighting (blue lights), as these devices are not considered emergency lighting. The possession, display and use of blue lights are covered in S.O.P. #403. \*

**USE OF PERSONAL VEHICLE WARNING LIGHTS (BLUE LIGHTS)**

**PURPOSE**

- To minimize risk of injury to fire department personnel and the public while reducing the risk of damage to vehicles operated by fire department personnel.

**PROCEDURE**

- The Tuscola Fire Department personnel shall follow the following criteria for the use of personal warning systems on vehicles. Personal warning lights shall be operated in compliance with State of Illinois Vehicle Code.

**UNKNOWN REPORTS OF POSSIBLE FIRE**

- May be operated

**REPORTED VEHICLE FIRES**

- May be operated

**GRASS OR BRUSH FIRES**

- May be operated if information indicates a real potential for extension of fire to a dwelling, if there is abnormal climactic conditions (high winds or dry conditions) or a threat to life.

**REPORTED STRUCTURE FIRES**

- May be operated

**AUTOMATIC FIRE ALARMS (residential)**

- May be operated

**AUTOMATIC FIRE ALARMS (commercial)**

- May be operated

**WASH DOWNS**

- May not be operated. In the event that there is a volatile chemical spill involved the response should be considered a hazardous material release or reported fire with the appropriate guidelines followed.

**HAZARDOUS MATERIAL SPILLS OR RELEASES**

- May be operated

**MUTUAL AID/AUTOMATIC AID (on-scene assistance)**

- May be operated. The personnel responding shall be guided by S.O.P. #400 and #202.

**MUTUAL AID/AUTOMATIC AID (response in lieu of the department coverage)**

- May be operated. The personnel responding shall be guided by S.O.P. #400 and #202.

**MUTUAL AID/AUTOMATIC AID (move-up or coverage)**

- May not be operated. The personnel responding shall be guided by S.O.P. #400 and #202.

**CONFINED SPACE RESCUE**

- May be operated

**CARBON MONOXIDE ALARM**

- May not be operated unless information indicates that there is a life threat.

The personnel responding on an assignment in a non-operating status shall upon confirmation of a continued risk to lives, property or the environment, shall be allowed to change to a may be operated status after this information is known.

Personal warning lights may be turned on for scene protection or vehicle protection upon arrival at a scene. This is not considered as “response” and is not intended to be covered in this procedure.

This SOP does not cover the use of emergency vehicle warning lights as these devices are covered in SOP # 402.

## **OPERATIONS**

### **PURPOSE**

- The S.O.P.'s within the 400 series are written as a guide to base like operations. By grouping operations and operating under a "guide", all team members have a basic understanding of the events that will occur. By having this understanding in advance, each individual firefighter is able to carry out his responsibilities without direct orders from the incident commander
- Additionally these procedures are used as a training tool to better understand the operations of the Tuscola Fire Dept. Officers and firefighters alike can use these as a basic guide to tactics and strategies used in fire suppression and incident stabilization.

### **PROCEDURE**

The following steps can be used as a guide to determine the appropriate S.O.P. to follow.

- Determine the type of incident as to
  - Day and date of incident
  - Time of incident
  - Place of incident
  - How incident was reported
- Size up the incident/scene
  - Who (involved, number, special needs)
  - What is involved (size, type, etc.)?
  - When (does time have effect)
  - Where (does location have effect)
  - Why (will intervention have a positive effect)
  - Risk vs. Benefit (little benefit to the amount of risk)
  - Safety concerns (more help needed to perform safely)
- Determine resources available/needed
  - Time of day
  - Day and date
  - Location
  - Mutual Aid
  - Time needed to get additional resources
- Categorize the incident by type and refer to the appropriate SOP for operation guidelines.
- Establish command by locating and identifying a command post.
- Sector out appropriate subordinate command functions as appropriate for the incident type and size. Sector Examples:
  - Safety
  - Rehabilitation
  - Emergency medical services
  - Crowd control

- Interior
- Rear
- Suppression
- Roof or Ventilation
- Exposure protection
- Decontamination
- Monitoring or testing
- Rescue

**Note: The list of sectors above are examples and are not to be considered required for any given incident. These functions may be carried out and the name of the “sector” may be different.**

- Continually re-evaluate the incident and adjust the tactics as needed.

**TUSCOLA FIRE DEPARTMENT**  
**OPERATIONS CHECKLIST**

IC \_\_\_\_\_

\_\_\_\_\_ Clear building of personnel \_\_\_\_\_

\_\_\_\_\_ Check collapse zones \_\_\_\_\_

\_\_\_\_\_ Ladder 96 and Squirt 99 and Arcola Ladder, in place and flowing water

\_\_\_\_\_ Command Post set up (*green light*) Location \_\_\_\_\_

\_\_\_\_\_ Aids – 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

\_\_\_\_\_ Radios and frequency to handle – Tuscola Fire.....Ch-1  
County Fire.....Ch-2  
IFERN.....Ch-3  
MABAS Frequencies.....\_\_\_\_\_

\_\_\_\_\_ **Mutual Aid called**

\_\_\_\_\_ Manpower  
\_\_\_\_\_ Engines  
\_\_\_\_\_ Tankers  
\_\_\_\_\_ Aerials  
\_\_\_\_\_ Rescue (Breathing Air)

\_\_\_\_\_ **Cities (Mutual Aid Assoc.)**

_____ Arcola	_____ Murdock
_____ Arthur	_____ Newman
_____ Atwood	_____ Oakland
_____ Camargo	_____ Pesotum
_____ Hindsboro	_____ Equistar
_____ Longview	_____ Villa Grove

\_\_\_\_\_ **Outside Mutual Aid**

_____ Paris	_____ Savoy	_____ Sadorus/Ivesdale
_____ Sullivan	_____ Mattoon	_____ Tolono

\_\_\_\_\_ **MABAS Units** \_\_\_\_\_

\_\_\_\_\_ **Operations Officer** \_\_\_\_\_

\_\_\_\_\_ **Staging Officers Assigned**

\_\_\_\_\_ Manpower – Officer \_\_\_\_\_  
\_\_\_\_\_ Apparatus – Officer \_\_\_\_\_

\_\_\_\_\_ **Safety Officer Assigned – Officer** \_\_\_\_\_

\_\_\_\_\_ Utilities shut off \_\_\_\_\_  
\_\_\_\_\_ Rapid Intervention Team \_\_\_\_\_  
\_\_\_\_\_ EMS (Ambulances) \_\_\_\_\_

\_\_\_\_\_ **Air Sector – Officer** \_\_\_\_\_

\_\_\_\_\_ **Re-hab Sector – Officer** \_\_\_\_\_

\_\_\_\_\_ **Planning – Officer** \_\_\_\_\_

\_\_\_\_\_ **Rear Exposure - Officer** \_\_\_\_\_

\_\_\_\_\_ **Side Exposures**

\_\_\_\_\_ Left side – Officer \_\_\_\_\_

\_\_\_\_\_ Right side – Officer \_\_\_\_\_

\_\_\_\_\_ Lines in buildings on either side \_\_\_\_\_

\_\_\_\_\_ Lines on rooftops on either side \_\_\_\_\_

## TUSCOLA FIRE DEPARTMENT

## S.O.P. #405

Effective Date: 01-14-95

Updated: 12-08-96 Reviewed: 2013

Approved: Steve L. Hettinger  
Chief

## CONFINED SPACE RESCUE

### PURPOSE

- Tuscola Fire Department personnel shall comply with all O.S.H.A. regulations and the following safety procedures during any incident, which is usually a rescue that requires entry into a confined space. Strict adherence to safety procedures protects fire department personnel and represents the best chance of survival for the victim.

### PROCEDURE

- Fire Department personnel shall perform the following procedures before entering any Confined Space for any reason.
- Confined Space is an area which has many of the following characteristics:
  1. Limited openings for entry and exit
  2. Unfavorable, natural ventilation
  3. Potentially hazardous atmosphere
  4. Not designed for continuous worker occupancy
- Examples of Confined Space for the purpose of this procedure shall consist of, but are not limited to:
  1. Sanitary and storm sewers
  2. Utility manholes and vaults
  3. Below-grade wet and dry wells
  4. Sanitary and storm sewer lift stations
  5. Waste-water treatment plant pits
  6. Storage tanks
  7. Meter pits and vaults
  8. Silos
  9. Boilers, furnaces, or similar closed equipment
  10. Enclosed bins
  11. Utility tunnels
  12. Wells and cisterns
  13. Pits and excavations

### RESPONSE

- The response to a known Confined Space Rescue situation shall be dispatched as a Confined Space Rescue
- Response equipment and personnel vehicles should park at least 50 to 75 feet downwind from the entrance to the Confined Space and the engines shut down to eliminate ignition sources and exhaust fumes from complicating the rescue. Engines for pumping needed hose lines are to be at least 100 to 150 feet from the entrance.



- The incident commander will need to determine the need for additional resources as soon as possible. These additional resources could include:
  1. Additional fire companies
  2. Ambulances
  3. Hazardous Material Team (Quantum, Cabot)
  4. Public works equipment and personnel
  5. Specialized equipment
  6. Heavy equipment ( J.L. Allen Construction, Hunt Excavating, Doug Dietrich, Willis Little Excavating)

## SIZE-UP

- Personnel shall not enter a Confined Space until a size-up has been completed and sufficient resources are available to assure the safety of the rescuers. The following information should be obtained as part of the size-up process:
  1. Is there an entry permit system in place
  2. Was the entry system being used
  3. Number and location of victims
  4. Type of injury (traumatic, electrocution, asphyxiation, poisoning)
  5. The time the victim(s) entered the space
  6. What type of Confined Space is involved
  7. What type of product has been in the space
  8. Has the space been ventilated
  9. Has all electrical or mechanical equipment been locked out
  10. Have all liquid or gas valves been blocked out

## AIR MONITORING

- The atmosphere of all Confined Spaces shall be considered explosive, toxic, and oxygen deficient until proven safe by air monitoring. All Confined Spaces shall be monitored for oxygen, flammable vapors, and toxic vapors.
- Fire Department personnel shall not enter a Confined Space without the atmosphere inside the space being tested and determined safe by the Safety Officer or Incident Commander.
- A trimeter (MSA 360 oxygen, carbon monoxide, lower explosive limits) shall be used initially to determine oxygen percentage, flammability, and carbon monoxide.

**Note: If you have a quad meter, it will test all of the above and hydrogen sulfide (H<sub>2</sub>S). We have 2 trimeters and a Draeger unit with appropriate tubes for H<sub>2</sub>S and other known chemical on Rescue 95.**

- The air monitoring shall be done in the following sequence:
  - The first test is for the percent of oxygen in the Confined Space
    1. Any confined space with less than 19.5% oxygen is considered deficient and should not be entered without SCBA
    2. Any confined space with greater the 23.5% is considered oxygen enriched and should not be entered because of the explosion hazard

3. Any confined space that is not within the 19.5% to 23.5% must be ventilated and retested before entry
- The second test to be conducted is for the lower explosive limit (LEL) of flammable vapor
  1. This test must be done after the oxygen test because the LEL test requires at least 5% to 10% oxygen for the meter to work
  2. The test meter should either use an extension hose or be lowered into the space to test at various levels
  3. Any confined space with more than 10% of the LEL is considered flammable and must be ventilated and retested before entry
- The third test is for toxic vapors, which usually are carbon monoxide (CO) and hydrogen sulfide (H<sub>2</sub>S). These tests use the Threshold Limit Value Time Weighted Average (TLV-TWA) or the Short Term Exposure Limit (STEL) as the test values
  1. Any confined space with more than 35 parts per million (ppm) of carbon monoxide is considered toxic and should be ventilated, but can be entered with SCBA if the atmosphere is not flammable
  2. Any confined space with more than 10 parts per million (ppm) of hydrogen sulfide is considered toxic and should be ventilated, but can be entered with SCBA if the atmosphere is not flammable
  3. Response personnel should also monitor for any other known or suspected chemicals that could be in the confined space. This testing will be done with the Draeger Test equipment if the chemical test tube is available

## **HAZARD REMOVAL**

- Response personnel shall determine that the confined space is isolated from additional hazards
- All electrical supplies that are on or could be switched on shall be shut off and locked off
- All valves that are on or that could be turned on shall be shut off or blocked out and then locked out or off
- Any mechanical shaft or agitator shall be disengaged or disconnected and locked in a safe position
- Do not enter any space that contains dust particles where the visibility is less than five feet. Ventilate the space with a fan until visibility is improved

## **ENTRY**

- All Fire Department rescue personnel involved in a confined space rescue shall work in a buddy system when it is physically possible for two rescuers to enter the confined space
- The Safety Officer is responsible to have the rescuers time on air and the time in the space recorded
- All rescue personnel involved in a confined space rescue shall wear full protective clothing and SCBA as needed

- If the space is chemically contaminated, chemical protective clothing shall be worn
- Fire Department personnel shall not breathe the atmosphere in the confined space until it has been tested
- A back-up team of the same number as the entry team shall be standing by, prepared to come to the aid of the entry team. These personnel shall not be assigned any additional duties and shall be equipped and wearing the same level of protection as the entry team
- The entry and back-up teams shall have radio communication capability
- The entry team and the entry process shall be controlled by an officer trained in Confined Space Rescue
- If needed, a charged hose line shall be positioned at the entrance to the confined space and shall remain manned and in place throughout the incident
- A hoisting system or ladder shall be used in vertical confined space situations. All rope work shall be performed only by trained vertical rescue personnel
- There shall be a written record, and if possible, a video recording of all outside the confined space activities and personnel involved

#### **PACKAGING AND REMOVING THE VICTIM(S)**

- Upon locating the victim(s), the rescuers shall perform medical assessment and relay this information to the EMS personnel outside the confined space
- Depending upon the medical assessment, either an EMS person will be equipped with a SCBA and protective clothing to enter the space and treat the victim, or the firefighter will stabilize the victim
- The rescuers will package the victim using equipment under the direction of EMS personnel, the patient is placed in a stokes basket, rescue stretcher, or on a backboard and moved or hoisted out of the confined space
- If the victim has been chemically contaminated, his/her clothing should be removed and decontaminated. The rescuers should also be decontaminated

**Note: Under no circumstances shall any aspect of safety be sacrificed to increase the speed of the operation!!!**

**PUBLIC ASSISTANCE CALL**

**PURPOSE**

- Standardizing responses for public assistance requests of the Tuscola Fire Department.

**PROCEDURE**

- On the receipt of a request for public assistance, responding personnel shall report to the south fire station for further instructions. The reporting ranking officer shall determine the level of response. Under no condition shall a non-emergency public assistance call supersede the need for an emergency response request. The response may include one of the following:
  1. No response, the requesting party shall be contacted with an explanation of the department's denial of the request
  2. Response of an appropriate number of personnel via private vehicle
  3. Response of an engine and an appropriate number of personnel for the request
  4. Response of a rescue squad and an appropriate number of personnel for the request
  5. Response of a ladder truck and an appropriate number of personnel for the request
- The following conditions shall be considered when deciding on a response and during the performance of duties to provide the service requested:
  1. Fire department apparatus or equipment will not be put at risk of damage
  2. Fire department personnel will not be put at risk of injury
  3. Residence of the area will not be put at risk of injury
  4. The environment will not be knowingly damaged
  5. The actions would in no way be looked upon negatively by the public for which the Tuscola Fire Department serves
  6. Any actions will not violate local ordinances or local, state or federal laws

**UNKNOWN FIRE / SMOKE ODOR****PURPOSE**

- Standardizing responses for reports of a fire/smoke odor with an unknown origin or type.

**PROCEDURE**

- On the receipt of an alarm for an unknown fire/smoke odor, fire department personnel respond to the scene. Assigned apparatus engineers report to the appropriate stations to pick up apparatus per the standard operating procedures, which apply. The following are the standard assignments:
  - **Arriving firefighters** on the scene don personal protective equipment appropriate for the incident found
  - **First arriving officer** shall assume command of the scene and direct activities as per standard operating procedures after completing an appropriate size up. Additional duties may include:
    1. Deviations from standard operations as necessary
    2. Direct incoming apparatus as to position and function on the fire ground
    3. Assign duties as required
    4. Pass command to ranking officer on his/her arrival as appropriate
  - **First in engine** position in front of the reported location but not over committing. **(Outside a Structure)** This position may be just before the reported location. **(Within a Structure)** Position in front of the reported location while providing room for ladder truck placement. Redirected assignments may include:
    - Outside a Structure**
      1. Setup in front of another address
      2. Repositioning to the rear of the location
    - Within a Structure**
      1. Responding to the rear of the location
      2. Position and provide minimum on 1-3/4 inch attack line
  - **Second in engine** “stage” at least one block before the fire location and await assignment. Possible assignment may include:
    1. Provide a minimum 250 G.P.M. water supply for the first in engine
    2. Move up and assist on scene personnel
    3. Provide an additional attack position at a different location

- **Rescue truck** should “stage” at least one block before the fire location and await assignment. Possible assignments may include:
  1. Move up for additional equipment at scene
  2. Move up and provide support services (ie: SCBA servicing, rehabilitation, or air monitoring)
- **Ladder truck** should “stage” at least one block before the fire location and await assignment. Possible assignments may include:
  1. Move up to the front of the building for roof or upper floor access
  2. Move up and assist on scene personnel
  3. Move up for additional equipment at scene

**STRATEGIC PROCESS:**

- Gather information as to wind direction and speed
- Attempt to determine the source of the fire/smoke odor
- Determine if the fire is of an unwanted nature, a risk to other property or the smoke is a risk to the health of nearby residents
- Extinguish the fire if this action is appropriate
- Confirm no additional fires or possible sources for additional fires
- If the source proves to be from a structure or other type fire follow the appropriate standard operating procedure
- Terminate the incident and turn the property over to the owner/occupant. Inform the owner/occupant as to the situation and reasons for the actions taken if appropriate

## RESIDENTIAL STRUCTURE FIRE

### PURPOSE

- Standardize operations for the first 15 to 30 minutes of fire suppression activities.

### PROCEDURE

- **First arriving firefighters** shall don all appropriate fire fighting protective clothing and begin gathering information as to the situation presented (size up)
  - Gather information such as building layout, exits, size and construction. Additionally, persons endangered, exposures, weather conditions, etc.
- **First arriving officer** shall assume command of the scene and direct activities as per standard operating procedures, after completing an appropriate size up. Consider the following:
  - Deviations to standard operations may occur
  - Direct incoming apparatus as to position and function on the fire scene
  - Assign duties as required
  - Pass command to ranking officer on his/her arrival as appropriate
- **First arriving engine** shall take a position in the front (side closest to the fire location) of the building leaving enough room for aerial apparatus placement.
  - Place apparatus as per apparatus operating SOP
  - Establish fire flows from apparatus booster tank. Provide an initial 1 ¾ inch attach line for interior operations and one additional for backup or exposure protection
  - Additional hand lines may be requested
- **Second arriving engine** shall “stage” outside of the fire block and prepare for assignment as directed. Assignments may include:
  - Provide a 250 G.P.M. minimum water supply to the first arriving engine in operation at the front of the building. Leave a means for entry and setup for incoming aerial apparatus
  - Provide a second attach or suppression location at the rear or one side of the fire building
  - Provide the booster tank water to the first in Engine by pumping to the first in engine’s pump intake (rural operations)
- **Rescue apparatus** shall “stage” until assigned. Possible assignments include:
  - Positioning outside of the immediate fire area for purposes of equipment utilization, rehabilitation, and or SCBA servicing
- **Aerial apparatus** shall “stage” until assigned. Possible assignments include:
  - Positioning outside of the immediate fire area for purposes of equipment utilization
  - In the front of the fire building for roof or upper story access

- At an appropriate location to provide rescue of entrapped fire victims or firefighters
- **Command officer** shall receive the position of incident commander from the first arriving officer with a verbal report. This exchange will occur on the request of the subordinate commander or the superior officer when conditions warrant. Some of the functions the incident commander will provide for include the following:
  - Securing of utilities
  - Sectoring of command functions
  - Apparatus placement
  - Fire ground safety
  - Press or information releases
  - Fire suppression direction (Tactics & Strategy)
  - Incident termination

## STRATEGIC PROCESS

- Gather information as to incident type, location, weather conditions, available resources, etc. and formulate a plan of action
- Place equipment and resources to protect lives and property while minimizing risk to personnel. Consider the following order of priority:
  - Rescue (or protect)-fire victims above the fire first, then rooms next to the fire on the same floor, etc.
  - Confinement (of fire)-interior and exterior exposures
  - Ventilation-natural or forced, vertical or horizontal
  - Extinguishment-knock-down fire
  - Salvage-protection of property by removal from danger area, covering or cleaning (protect lives and "property).
  - Overhaul-finding and extinguishment of hidden fire.
- Implement the plan formulated based on the information obtained in the size-up.
- Adjust the plan as necessary when conditions indicate an unfavorable outcome or when information warrants a change.
- Minimum 1 ¾ inch attack line taken through the front door of the residence providing protection to stairways and hallways while a primary search for trapped occupants and fire location is being made.
- Line is repositioned to attack the fire when located.
- A second minimum 1 ¾ inch attack line is placed in service to supplement and/or back-up (protect means of egress) the first line.
- Utilities including gas service and electric service are discontinued from the fire building with approval of the incident commander.
- Rapid (usually natural, vertical or horizontal) ventilation is performed to ease the stress on interior crews.
- Ladder truck is positioned for upper story or roof access or equipment utilization as necessary.
- Additional (roof top vertical) ventilation is initiated if conditions warrant.
- Second in engine provides an appropriate (minimum 250 G.P.M.) water supply to the first-in (attack) engine.
- Rescue truck is positioned to provide support services such as SCBA servicing, tool utilization, and rehabilitation.



- After the fire has been knocked-down a secondary search of the fire area/building is performed.
- Salvage and overhaul operations are performed.
- Fire cause and origin assessment is performed and findings are documented.
- Apparatus and equipment are readied and placed back into service.
- Building is secured and turned over to the owner or occupant and the incident is terminated.

**COMMERCIAL STRUCTURE FIRE**  
**(Including Multi-Residential and Institutional Structures)**

**PURPOSE**

- Standardize operation for the first 15 to 30 minutes of fire suppression activities.

**PROCEDURE**

- **First arriving firefighters** shall don all appropriate fire fighting protective clothing and begin gathering information as to the situation presented (size up)
  - Gather information such as building layout, exits, size, construction and building contents and number of occupants. Additionally, persons endangered, exposures, weather conditions, etc.
- **First arriving officer** shall assume command of the scene and direct activities as per standard operating procedures after completing an appropriate size up. Consider the following:
  - Deviations to standard operations may occur.
  - Direct incoming apparatus as to position and function on the fire scene.
  - Assign duties as required.
  - Pass command to ranking officer on his/her arrival as appropriate.
- **First arriving engine** shall take a position in the front of the building (side closest to the fire location) or pre-establish location as per the pre-fire plan for the building, leaving enough room for aerial apparatus placement.
  - Place apparatus as per apparatus operating SOP or pre-fire plan.
  - Smoke Showing-Forward lay in from the closest acceptable hydrant to provide the maximum pumping capacity of the apparatus.
  - Establish fire flows from apparatus booster tank until the supply line can be charged. Provide an initial 1-3/4 inch attack line for interior operations and one additional backup or exposure protection.
  - Additional hand lines may be requested.
- **Second arriving engine** shall “stage” outside of the fire block and prepare for assignment as directed. Assignments may include:
  - Smoke Showing-Forward lay in from the (next) closest acceptable hydrant to provide the maximum pumping capacity of the apparatus and begin attack operations from the assigned position, leaving a means for entry and setup for incoming aerial apparatus. This may include hand lines.
  - Provide a 500 G.P.M. minimum water supply to the first in Engine in operation at the front of the building. Leave a means for entry and setup for incoming aerial apparatus.
  - Provide the booster tank water to the first in Engine via pumping to the first in Engine’s pump intake (rural operations).
- **Rescue apparatus** shall “stage” until assigned. Possible assignments include:

- Positioning outside of the immediate fire area for purposes of equipment utilization, rehabilitation, and or SCBA servicing.
- **Aerial apparatus** shall “stage” until assigned. Possible assignments include:
  - Positioning outside of the immediate fire area for purposes of equipment utilization.
  - In the front of the fire building for roof or upper story access.
  - At an appropriate location to provide rescue of entrapped fire victims or firefighters.
- **Command officer** shall receive the position of incident commander from the first arriving officer with a verbal report from the previous commander. This exchange will occur on the request of the subordinate commander or the superior officer when conditions warrant. Some of the functions the incident commander will provide for include the following:
  - Securing of utilities
  - Sectoring of command functions
  - Apparatus placement
  - Fire ground safety
  - Press or information releases
  - Fire suppression direction (Tactics & Strategy)
  - Incident termination

## **STRATEGIC PROCESS**

- Gather information as to incident type, location, weather conditions, available resources, etc. and formulate a plan of action.
- Place equipment and resources to protect lives and property while minimizing risk to personnel. Consider the following order of priority:
  - Rescue-(or protect) fire victims above the fire first, then rooms next to the fire on the same floor, etc. In Institutional Structures consider protecting residents in place, provided the following allow; building construction and design, fire intensity, and residents ability to ambulate.
  - Confinement (of fire)-interior and exterior exposures
  - Ventilation-natural or forced, vertical or horizontal
  - Extinguishment-knock down of fire
  - Salvage-protection of property by removal from danger area, covering or cleaning (protect lives and “property”)
  - Overhaul-finding and extinguishment of hidden fire
- Implement the plan formulated based on the information obtained in the size-up.
- Adjust the plan as necessary when conditions indicate an unfavorable outcome or when information warrants a change.
- Minimum 1-3/4 inch or 2-1/2 inch attack line taken through the closest door to provide protection to firefighters while a primary search for trapped occupants and fire location is being made.
- Consider protecting non-ambulatory residents in place.
- Line(s) is/are repositioned to attack the fire when located.
- A second minimum 1-3/4 inch or 2-1/2 inch attack line is placed in service to supplement and/or back up (protect means of egress) the first line or protect residents in place.
- Utilities including gas service and electric service are discontinued from the fire building with approval of the incident commander.

- Rapid (usually natural, vertical or horizontal) ventilation is performed to ease the stress on interior crews when possible.
- Ladder truck is positioned for upper story or roof access or equipment utilization as necessary.
- Additional ventilation is initiated if conditions warrant.
- Second in Engine provides additional attack operations or maximum water supply to the first in Engine.
- Rescue truck is positioned to provide support services such as SCBA servicing, tool utilization, and rehabilitation.
- After the fire has been knocked down a secondary search of the fire area/building is performed.
- Salvage and overhaul operations are performed.
- Fire cause and origin assessment is performed and findings are documented.
- Apparatus and equipment are readied and placed back into service.
- Building is secured and turned over to the owner or occupant and the incident is terminated.

## VEHICLE FIRE

### PURPOSE

- Standardize responses for reported vehicle fires.

### PROCEDURE

On the receipt of an alarm for a vehicle fire. Fire department personnel respond to the scene. Assigned apparatus engineers report to the appropriate stations to pick up apparatus per the standard operating procedures which apply. The following are the standard assignments:

- **Arriving firefighters** on the scene don personal protective equipment appropriate for the incident found. Size up the scene and redirect traffic as appropriate until the arrival of police personnel.

**Note: If vehicle is an R.V., locate LP gas cylinders (auxiliary or fuel tank) and take appropriate action.**

- **First arriving officer** shall assume command of the scene and direct activities as per standard operating procedures after completing an appropriate size up. Additional duties may include:
  - Deviations from standard operations as necessary.
  - Direct incoming apparatus as to position and function on the fire ground.
  - Assign duties as required.
  - Pass command to ranking officer on his/her arrival as appropriate.
- **First in engine** position 150 feet beyond the vehicle to provide a margin of safety to the apparatus engineer (uphill and upwind). Provide minimum one 1-3/4 inch attack line using booster tank water. (*Commercial Carrier – Truck*) Provide a second minimum 1-3/4 inch attack line. Redirected assignments may include:
  - Position 150 before the fire vehicle and provide minimum one 1-3/4 inch attack line using booster tank water.
  - Position to one side of the vehicle and provide minimum one 1-3/4 inch attack line using booster tank water.
  - Position to block traffic or secure the fire area.
- **Second in engine** (*Commercial Carrier – Truck ONLY*) “stage” at least 1,000 feet before the fire location and await assignment. Possible assignments may include:
  - Move up and assist on scene personnel.
  - Move up and provide an additional attack position from a different location.
  - Move up and provide the booster tank water to the first to arrive engine via pumping into the engine’s pump intake.
- **Rescue truck** should “stage” at least 1,000 feet before the fire location and await assignment. Possible assignments may include:
  - Move up for additional equipment at scene.
  - Move up and provide support services (IE: SCBA servicing, rehabilitation, air monitoring or tools).

## STRATEGIC PROCESS

- Gather information as to wind direction and speed
- Provide traffic control by stopping or redirecting traffic until police personnel can effectively take over this function.
- (*Commercial Carrier-Truck*) Determine the cargo being carried using shipping papers, information on trailer/container design and information from the driver.
- If an R.V. vehicle determine if LT gas cylinders are on board and take appropriate action.
- Place into service at least one 1-3/4 inch attack line and begin extinguishment from a front corner of the fire vehicle if possible (rear corner if not possible). (*Commercial Carrier-Truck*) place into service a second 1-3/4 inch attack line and begin extinguishment from the other side of the vehicle.
- Protect fire department personnel from traffic, flowing vehicle fuels, explosion and chemical/smoke exposure dangers.
- Complete extinguishment and initiate overhaul procedures.
- Open all compartmented areas including glove boxes, engine compartment, trunk, spare tire storage and passenger areas.
- Fire cause and origin assessment is performed and findings are documented.
- Apparatus and equipment are readied and place back into service.
- Vehicle is secured and turned over to the owner or occupant (may be tow truck operator).
- Terminate the incident and turn the property over to the owner/occupant. Inform the owner/occupant as to the situation and reasons for the actions taken if appropriate.

**MOTOR VEHICLE ACCIDENT (EXTRICATION)**

**PURPOSE**

- Standardize responses for reported motor vehicle accidents requiring extrication. Provide rapid extraction of people with injuries from a motor vehicle accident thereby increasing their chances of survival from those injuries.

**PROCEDURE**

On the receipt of automobile extrication call, fire department personnel respond to the scene. Assigned apparatus engineers report to the appropriate stations to respond in apparatus per the SOP procedures which apply. The following are the standard assignments:

- **Arriving firefighters** on the scene don personal protective equipment appropriate for the incident found. Being careful to limit ignition sources while approaching a scene with fuel leakage; and being careful of downed power lines.
- **First arriving officer** shall assume command of the scene and direct activities as per standard operating procedures after completing an appropriate size up. Additional duties may include:
  - Deviations from standard operations as necessary
  - Direct incoming apparatus as to position and function on the fire ground
  - Assign duties as required
  - Pass command to ranking officer on his/her arrival as appropriate
- **Rescue Engine 93** should position as close as possible to the accident location, while leaving enough room to operate using the battery/charging system to supply the Kinman extrication tool and other hydraulic rescue tools.
- Other apparatus position 150 feet short of the accident location. Leaving access for Rescue truck(s) and ambulances. Redirected assignments may include:
  - Set up 150 feet past the accident location
  - Repositioning to the side of the accident scene

**STRATEGIC PROCESS**

- Gather information as to wind direction and speed
- Secure the scene from other traffic and bystanders. Block off or redirect traffic until this can be effectively taken over by police personnel
- Size up the scene to determine the number and severity of injuries and extrication requirements
- Prioritize extrication objectives and request additional extrication equipment/manpower as may be required (including ambulances)
- Eliminate ignition sources including electrical arcs, static charges, and heat sources. Disconnect or turn off ignition and battery of vehicles

involved. Limit portable lights and radios to "safe" type within the areas having any flammable odor present

- Provide fire suppression protections using a minimum of one 10 pound dry chemical fire extinguisher, pin pulled. One person shall be assigned only this duty. Additionally one 1-3/4 inch attack line may also be charged and manned
- Attempt to eliminate any flammable fuel flows or spills using plugging or diking procedures
- Crib or shore vehicle to eliminate motion including rolling by cribbing in three places and blocking rear wheels
- Gain initial access to the patient(s) via opening doors or windows and position an emergency worker with the patient for reassurance, medical assessment, and extrication evaluation
- Develop and implement a plan for disentanglement
- Cover occupants within the vehicle using a flame resistant blanket if conditions warrant. This also includes the rescue worker within the vehicle
- Complete the disentanglement process and assist removing the patient to emergency medical personnel
- Open all compartment spaces to eliminate any possibility of fire or additional occupants missed in the initial size up
- Secure all equipment and place apparatus back into service
- Turn vehicle over to the owner/occupant, police department, or towing operator charged with the vehicle
- Terminate the incident and list the equipment back in service



## GAS ODOR

### PURPOSE

- Standardize responses for reports of a gas odor inside or outside of a structure.

### PROCEDURE

On the receipt of an alarm for a gas odor - Call dispatch and request the gas utility company (AMEREN CILCO). Fire department personnel respond to the scene. Assigned apparatus engineers report to the appropriate stations to pick up apparatus per the standard operating procedures which apply. The following are the standard assignments:

- **Arriving firefighters** on the scene don personal protective equipment appropriate for the incident found. Be careful to limit ignition sources while approaching the scene.
- **First arriving officer** shall assume command of the scene and direct activities as per standard operating procedures after completing an appropriate size up. Additional duties may include:
  - Deviations from standard operations as necessary.
  - Direct incoming apparatus as to position and function on the fire ground.
  - Use 4 gas meter to check for flammable vapors and CO or if not Assign duties as required
  - Pass command to ranking officer on his/her arrival as appropriate.
- **First in engine** position in front of the address before the reported location (do not over commit). **(Outside A Structure)** This position may be back farther from the reported location. **(Within A Structure)** Position in front of the address before the reported location. Redirected assignments may include:
  - **Outside A Structure**  
Set up in front of the reported address.  
Repositioning to the rear of the location.
  - **Within A Structure**  
Set up in front of the reported address.  
Repositioning to the rear of the reported location.  
Position and provide minimum one 1-3/4 inch attack line.
- **Second in engine** "stage" at least one block before the odor location and await assignment. Possible assignments may include:
  - Provide a minimum 250 G.P.M. water supply for the first in engine.
  - Move up and assist on scene personnel.
  - Provide an additional attack position at a different location.
- **Rescue truck** should "stage" at least one block before the odor location and await assignment. Possible assignments may include:
  - Move up for additional equipment at scene.
  - Move up and provide support services (IE: SCBA servicing, rehabilitation, or air monitoring).

- **Ladder truck** should “stage” at least one block before the odor location and await assignment. Possible assignments may include:
  - Move up to the front of the building for roof or upper floor access.
  - Move up and assist on scene personnel.
  - Move up for additional equipment at scene.

### **STRATEGIC PROCESS**

- Gather information as to wind direction and speed.
- Attempt to locate the source of the gas odor. Use the 4 gas meter to determine if the atmosphere is explosive and take appropriate action.
- Eliminate ignition sources including pilot lights, electrical arcs, static charges and heat sources. Disconnect or turn off utilities including; gas, electric and telephone. Limit portable lights and radios to “safe” type within the areas having any odor present.
- If the amount of gas odor is medium or heavy consider placing suppression line(s) into service.
- Attempt to pinpoint the source of the gas odor and determine the cause.
- Consider and implement evacuation of effected residences and buildings (Consider areas effected by an explosion, including sewers).
- Mitigate the apparent cause if this action is appropriate.
- Confirm no additional unwanted sources for a gas odor.
- Ventilate the structure(s) including void spaces,
- If the source proves to be from power company equipment contact the utility service and follow the appropriate standard operating procedure.
- Terminate the incident and turn the property over to the owner/occupant after the building has been safe guarded.

## HAZARDOUS MATERIALS (SPILL CONTROL)

### PURPOSE

- To insure that spilled or leaking flammable liquids and other chemicals are dealt with in a manner that protects human life and the environment. Spilled or leaking flammable liquids and other chemicals shall not be washed down into any sewer, waterway, ditch, etc.; but shall be controlled in manner that protects human life and the environment.

### PROCEDURE

Responding personnel shall perform the following procedures when responding to incidents involving hazardous materials:

- **Arriving firefighters** on scene shall don personal protective equipment appropriate for the incident found. Size up the scene and redirect traffic as appropriate until the arrival of police personnel.

### SPILLS

- Personnel shall use safe procedures when responding to a reported Hazardous Material spill; **NOTE: Most chemicals have more than one hazardous property (example: a flammable liquid may also be a corrosive or a poison)**
  - Respond from upwind and uphill.
  - Spot apparatus in a safe location.
  - Wear full turnout gear or other personal protective clothing with SCBA.
  - Use MSA meters; M-2, 260 or 360 to monitor for flammable vapors.
  - Shut off, if possible, any power sources and/or ignition source on the transport vehicle and any other vehicles involved and at the facility.
  - Request additional units (Mutual Aid) if the situation indicates.
- The size of the spill or leak shall determine the appropriate action. **NOTE: The size of the spill is relative to the physical and chemical properties of the product, terrain, occupancy and location (200 square feet is an approximation)**
  - If the spill is small, less than 200 square feet oil dry or other type absorbent can be spread, then require the spiller to have the absorbent and the material picked up.
  - If the spill is larger than 200 square feet, the Chief officer shall request additional equipment and/or manpower if needed.
  - If the spill is large and a flammable liquid, the fluid the area may need to be foamed to reduce the vapor and a possibility of fire.
  - Run off from the spilled or leaking material needs to be controlled by defensive spill control methods such as diking and damming.
  - All activities need to be performed from a position that protects the firefighters from explosions, flash fires or toxic fumes.
  - Charged hose lines need to be manned at all spills to protect firefighters and exposures, if a fire occurs.

- If a fire occurs of flammable liquids, foam and/or dry chemical extinguishers should/can be used on small fires.
- The location of the spill or leak will determine who supplies the absorbent and who is responsible for the clean up and disposal.
  - If the spill occurs at a service station, the owner/operator is required to supply the absorbent and to properly dispose of the waste.
  - If the spill is caused by a vehicle accident the responding wrecker driver will be responsible for the absorbent and the disposal of the waste.
  - If there is any question, use the TFD absorbent on R 95 and if there is sufficient quantity of waste, use the TFD salvage drum. Mark and label the drum with Hazardous Waste label and LEAVE it at the site. **NOTE: Do not bring any Hazardous Waste or Hazardous Materials back to the fire station.**
- **Notify the I.E.P.A.**
  - The Safety Officer or Haz. Mat. Officer should notify the I.E.P.A. if the released material is a reportable quantity (RQ). [See attached form] by calling the I.E.M.A. telephone number 1-800-732-7860. Report the incident, advise them of the situation and the contents and location of the materials and remember to get a I.E.M.A. incident number and make out the I.E.M.A. Field Report [See attached form]

## TRENCH RESCUE

### PURPOSE

- Insure the safety of personnel and guide response and operations involving at trench rescues or recoveries. Personnel should comply with all O.S.H.A. regulations and the following safety procedures during any incident, which may be a rescue or recovery, that requires entry into a trench, excavation or hole, 4 feet or deeper. Adherence to safety procedures protects fire department personnel and represents the best chance of survival for the patient.

### PROCEDURE

- Personnel should don all appropriate PPE. Generally that will be department issued rescue coveralls, helmet, boots, gloves and in some cases, a harness and safety line. Begin gathering information (size up) while establishing a minimum 15 foot perimeter from any excavation, trench, or hole. Approach the trench at the ends.
  - Gather information such as reason for excavation work, time and date work began, depth of work in area of entrapment, number and type of victims or patients, utilities in or near the excavation, weather conditions (current and predicted), type and location of sources of vibration, last known location of victims, existing soil conditions and concerns, time of day/date/day, etc.

### RESPONSE

- The incident commander will need to determine the need for additional resources as soon as possible. These additional resources could include:
  1. Additional fire companies
  2. Ambulances, Air Ambulance
  3. TRT teams – Charleston, Urbana, Decatur (*refer to Technical Rescue Box Card*)
  4. Public works equipment and personnel (*Vac Truck and additional shoring*)
  5. Utility Companies
  6. Specialized equipment such as heavy equipment (J.L. Allen Construction, Hunt Excavating, Doug Dietrich, Willis Little Excavating)
- Personnel shall not enter a trench until a size-up has been completed and sufficient resources are available to assure the safety of the rescuers.
-

## HAZARD REMOVAL

- General Area
  - Create a hot, warm, and cold zone. *Suggested size and distance:*
    - Hot zone extends 0-50 feet.
    - Warm zone extends from 50-150 feet.
    - Cold zone extends from 150-300 feet.*Size and distance may need to be adjusted based on the conditions at the scene.*
  - Control traffic movement.
    - Shut down roadways.
    - Re-route all non-essential traffic around the scene.
  - Control the crowd.
    - Remove all non-essential civilian personnel away from the incident. *Utilize police if possible.*
    - All non-essential personnel should stage in the Cold Zone away from the incident.
  - Shut down all heavy equipment operating near the collapse. Remove drivers and operators of any excavation equipment, dump trucks, etc. in proximity to the incident location and turn off and secure those vehicles (you may remove keys, plug wires, or turn off fuel supplies as necessary). Fire personnel shall maintain control of the equipment for possible moving or utilization.
- Rescue Area
  - Control all hazards in the area, i.e., utilities, electric, gas, water.
  - De-water the trench, if necessary.
  - Monitor the atmosphere in the trench utilizing confined space SOP guidelines.
  - Ventilate the trench, if necessary.
  - Identify soil type and condition.
- Trench
  - Approach the trench from the ends, if possible.
  - Look for unidentified hazards (i.e., fissures, unstable spoil pile).
  - Assess spoil pile for improper angle of repose. (Angle at which soil naturally settles, preferably 30-37 degrees)
  - Remove any tripping hazards (i.e., shovels, shores, tree roots).
  - Provide level area for ground pads.
  - Place ground pads around lip of trench.

## **ENTRY AND RESCUE - Patient Removal**

- Place ingress and egress ladders in trench. There should be at least two (2) ladders if possible, secured in placed in the trench.
- Decide on shoring system to be used (i.e., hydraulic shore, pneumatic shore, timber shore).
- Create a safe zone in the un-collapsed portion of the trench (possibly from both ends). This can be accomplished using an approved shoring system, i.e., pneumatic, hydraulic, timber.
- Secure all unsecured utilities, pipe, or any other obstruction in the trench.
- Begin dirt removal, operating from a safe zone (buckets, small shovels, by hand). Continue extending the safe zone into collapse zone. Rescuers shall remain in the safe zone while removing the dirt from the collapsed zone.
- Uncover victim to below the diaphragm.
- Begin patient assessment, if possible (ABCs). Begin ventilation, if possible. Initiate C-Spine precautions. Consider removing the victim from danger prior to providing definitive care.
- When the soil around the patient is completely removed, the patient should be packaged into the appropriate medical device for the situation, such as a Miller Half Splint, KED, backboard, C-collar, stokes basket, splints, etc and removed to awaiting EMS personnel.
- Remove the victim from the trench (vertical haul, horizontal haul).

## **TERMINATION**

- Remove tools and equipment from trench. If there has been a fatality, you may consider leaving tools and equipment in place for investigative purposes.
- Remove trench shoring system (last-in/first-out).

**Note: Under no circumstances shall any aspect of safety be compromised to increase the speed of the operation!!!**

## CARBON MONOXIDE RESPONSE

### PURPOSE

- To guide response and operations during a CO (carbon monoxide) incident which may be an emergency or non-emergency call.
- R-95 and or E-93 should respond.

### PROCEDURE

- **Only officers respond to CO calls not dispatched as a medical emergency.** (Note: The FC-1 unit carries a meter, so R-95 will not be needed initially) If additional help is needed, call for a second alarm.
- If the call is dispatched as a non-emergency investigation, caller is not reporting any suspected symptoms of CO poisoning, then the response should be without lights and sirens. If CO poisoning is suspected or the dispatcher indicates the caller is in distress or jeopardy, then the response should be considered an **emergency and lights and sirens should be used, and rescue will be the priority. All personnel should respond on the first alarm.**
- If not an emergency **on arrival**, obtain a **CO Checklist** (attached) from apparatus and Interview the occupants.
  - Check for signs and symptoms of CO poisoning.
  - The detector - how it alarmed, how old is it, where it is located, how many?
  - What had the occupants been doing prior to the alarm?
  - What fossil fuel, gas fired equipment is there, and their locations?
  - Was the house ventilated before arrival of the FD?
- Turn on the 4-gas meter in **fresh air** and zero it.
- **Take the first reading** just inside the front door. If that reading is 70 PPM or higher, don SCBA before entering the building.



- Continue checking all parts of the structure and all possible sources of CO. Document readings on the Field Incident Report. Sources may include:
  - Chimneys and flues
  - Furnace (*heat exchanger, gas burner & pilot, flue*)
  - Hot water heater (*heat exchanger, gas burner & pilot, flue*)
  - Dryer (*heat exchanger, gas burner, & pilot, flue*)
  - Gas Refrigerator
  - Kitchen Stove (*stoves are always unvented*)
  - Fireplace or stove
  - Barbecue Grills (*outside on decks and patios*)
  - Candles
  - Space heaters (*may be unvented*)
  - Garage & vehicle exhaust (*consider vehicles in the drive with garaged door open & wind forcing exhaust into the structure*)
  - Any of these sources in an adjoining structure or apartment.
  
- **If NO CO is found,**
  - Try to recreate what might have caused the CO, especially if the structure had been ventilated after the alarm and prior to FD arrival. Run all gas-fired equipment and check for CO. If the malfunction can be recreated and CO is found, go to **"If CO is found"** below.
  - Investigate the detector. If it is apparently malfunctioning, due to age, battery, etc., inform the occupants and leave them with a working CO detector from TFD apparatus or replace their battery. Test the detector to make sure it is operating. Make sure they understand that we have found no CO at this time, but they should heed any future alarms, as there may be CO present in the future.
- **If CO is found,** try to determine the cause and shut down the appliance or cause of the CO.
  - Ventilate the structure until CO readings are normal. Make sure the occupants are informed of the cause of the CO, and left with a working CO detector.
  - If the structure cannot be ventilated and CO readings returned to normal or if the source of the CO cannot be found, advise the occupants to leave the structure until HVAC contractor and the Utility can check all gas fired equipment.

## TERMINATION

- If CO readings were indicated on the 4 gas meter during investigation, confirm with the Incident Commander that they do not need to be saved and then clear those readings from the meter.
- Report to dispatch findings of the investigation and termination of the call.

# Tuscola Fire Department

## CO (Carbon Monoxide) INCIDENT CHECKLIST

SFMO Incident # \_\_\_\_\_ Incident Date: \_\_\_\_\_ Time: \_\_\_\_\_

Person completing this checklist: \_\_\_\_\_

**OCCUPANTS:** *(List)* \_\_\_\_\_

- Yes  No Are any of the occupants feeling ill?
- Headache \_\_\_\_\_
  - Fatigue \_\_\_\_\_
  - Nausea \_\_\_\_\_
  - Dizziness \_\_\_\_\_
  - Confusion \_\_\_\_\_

Yes  No Do they feel better when away from the structure?  
 What were occupants doing prior to the alarm? \_\_\_\_\_

- Yes  No Did they ventilate the house before arrival of FD?  
 Yes  No Did they shut off any appliances? Which Ones? \_\_\_\_\_

**DETECTOR / ALARM**

How did the detector/alarm sound? \_\_\_\_\_

Intermittently?  
 Continuously? Age of Detector *(Look on the back for date)* \_\_\_\_\_ yrs. Location \_\_\_\_\_

**METER READINGS & POSSIBLE CO SOURCES**

	Location	PPM
<input type="checkbox"/> <b>First reading just inside the front door.</b> <i>(If that reading is 70 PPM or higher, don SCBA before entering the building.)</i>	_____	_____
<input type="checkbox"/> Room <i>(Specify in Location)</i>	_____	_____
<input type="checkbox"/> Room <i>(Specify in Location)</i>	_____	_____
<input type="checkbox"/> Other Location <i>(Specify in Location)</i>	_____	_____
<input type="checkbox"/> Other Location <i>(Specify in Location)</i>	_____	_____
<input type="checkbox"/> Chimneys and Flues <i>(faulty, disconnected, downdrafts)</i>	_____	_____
<input type="checkbox"/> Furnace <i>(heat exchanger, gas burner &amp; pilot, flue)</i>	_____	_____
<input type="checkbox"/> Hot Water Heater <i>(heat exchanger, gas burner &amp; pilot, flue)</i>	_____	_____
<input type="checkbox"/> Dryer <i>(heat exchanger, gas burner &amp; pilot, flue)</i>	_____	_____
<input type="checkbox"/> Gas Refrigerator <i>(heat exchanger, gas burner &amp; pilot)</i>	_____	_____
<input type="checkbox"/> Kitchen Stove <i>(unvented)</i>	_____	_____
<input type="checkbox"/> Wood or gas burning fireplace or stove	_____	_____
<input type="checkbox"/> Barbecue Grill <i>(outside on decks and patios)</i>	_____	_____
<input type="checkbox"/> Candles	_____	_____
<input type="checkbox"/> Space Heaters <i>(may be unvented)</i>	_____	_____
<input type="checkbox"/> Garage & vehicle exhaust <i>(consider vehicles in the drive with garage door open and wind forcing exhaust into the structure)</i>	_____	_____
<input type="checkbox"/> Any of these sources in an attached adjoining structure or apartment	_____	_____

**Notes:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**If CO is found, move occupants to a safe location, record readings, and refer to the CO SOP.**

## EMERGENCY NOTIFICATION SIRENS

### **PURPOSE**

- To develop policies, guidelines and procedures for activating the emergency notification sirens, storm spotter activities, dispatch, control and scope for use of the emergency notification system.

### **SCOPE**

- The emergency notification system can be used for severe weather notification for the citizens of Tuscola who may be outside when the severe weather strikes. It is not intended to be heard indoors. If citizens are indoors they should monitor the National Weather Service on radio and television for severe weather information.
- The emergency notification system may also be used with voice notification to alert citizens of any other hazards that may occur.
- The emergency notification sirens will be the responsibility of the Tuscola Fire Department, however, any city personnel trained in weather spotting may be utilized by the TFD Incident Commander (IC) for weather spotting if the need arises.

### **PROCEDURE**

- **Decisions to activate** the emergency sirens will be by the TFD Incident Commander (IC) based on the following
  1. When the National Weather Service issues a tornado warning for an area that possibly includes Tuscola in the path of the tornado.
  2. When a tornado has been confirmed by Tuscola weather spotters or spotters of other cities and it is moving in a path that might include Tuscola.
  3. When TFD monitoring of radar indicates a tornado vortex with a path that might include Tuscola.
  4. When the TFD IC decides the system should be activated for any disaster situation.
- **Notification of the need for weather spotting** will be by radio tone alert (1405 MHZ) on 158.940 MHZ by the Douglas County Dispatch whenever the National Weather Service issues a severe weather bulletin, or when the TFD IC requests activation based on his own assessment of conditions. Weather spotters should monitor those frequencies.
- **Spotters** should respond directly to the TFD South Station for assignments.
- **All spotters**, whether TFD personnel or other city employees, will be under the authority and direction of the TFD IC while they are involved in weather spotting activities.
- **Assigned spotter locations** will be prioritized and reporting spotters will be sent out to those locations in the prioritized order. This will put spotters where they are needed the most when the number of available spotters is less than the maximum needed. The first priority will be a dispatcher who will receive reports from the spotters, the IC and activate the sirens based

on the criteria set forth. The next priority will be the spotter locations 1, 2, 3, 4, 5 and 6 as they appear on the storm spotter map in the South Station. After assigned a location, spotters may change location if needed to better observe the storm or remove themselves from the path of the storm. Notify the IC when changing locations.

- **After dark**, TFD will no longer do field monitoring of storms. Storms should be monitored using radar, TV media, National Weather Service information and any other reliable source such as police reports to determine the need to activate the sirens.

❖ **STORM SPOTTER LOCATIONS** (see map attached)

- **The IC may assign additional weather spotter locations** if the situation warrants the need for eastern coverage or a mobile spotter.
- **Each spotter** must have his or her accountability tag on the storm spotter map board at the location they have been assigned before they leave the South Station for that assignment.
- **There should be two spotters** to each vehicle and one vehicle to each assigned location. The vehicles used should be TFD officer vehicles (with portable radios and at least one cell phone) before any fire department apparatus is used for spotting. When other than TFD personnel are used for weather spotting, police cars and street department trucks should also be utilized before fire apparatus.
- **All spotters** should plan for and be aware of their escape route, overhead power lines, trees and other structures that might fall during high winds.
- **Radio traffic** should be limited to reporting arrival at your assigned location, reports of funnel or tornado sightings, severe and damaging straight-line winds, damaging hail, and notification of the need to relocate or return to quarters.

**PROCEDURE (WARNING SYSTEM ACTIVAION)**

- Turn the encoder on. Place base radio on Channel 1 (158.940). Transmit message to “hold all radio traffic for the activation of the emergency warning system”. Activate the encoder for whichever message and tone is required for the situation indicated by the IC.

❖ **PRE-PROGRAMMED TONES AND MESSAGES:**

- **C1** – “Attention! This is a test of the Tuscola outdoor warning system. This is only a test.” Followed by the alert tone for 3 minutes.
  - **C2** – Whoop Tone for 40 seconds. Followed by the voice message: “Attention! A tornado warning has been issued for Tuscola”.
  - **C3** – Alert Tone for 3 minutes. Followed by the voice message: “A tornado is approaching Tuscola! Seek shelter NOW!”. Will be repeated a second time.
  - **C4** – “Attention! The emergency situation is no longer a threat. This is the All Clear”.
- **To use the pre-programmed tones and messages**, press the appropriate button, then press the SEND button. If you monitor 158.940 with a separate radio (will not be heard on the base radio) you will hear tones for each instruction the encoder transmits to the sirens. Be patient.

If you do not hear the tones the system was not activated. Push the RESET button and start over.

- **For Public Address announcements and or warning tones for other disaster situations**, press the Warning Tones button and select the desired tone by using the scroll buttons. Press the All button and the Send button. Wait for the siren to sound the desired amount of times and then press the Rotating Direction button and select a direction to transmit the voice message. Press the All button and Send button. Wait 15 seconds for the siren to rotate to that direction. Press the Warning Tones button and select Public Address (P.A.) by using the scroll buttons. Press the All button and the Send button. Then use the Encoder mic to give the public announcement. Do this for each direction desired. Talk slowly and precisely. **NOTE: Any radio transmitting on 158.940 while the sirens are in the P.A. mode will be broadcast over the P.A.**
- **To cancel any tone**, or other command sent to the sirens, press the Warning Tone button, select cancel, press the All button and the Send button.
- **The Reset button** is for resetting the encoder ONLY. It does not cancel instructions sent to the sirens.
- **Individual Siren Addresses** for single siren operation.
  - North Siren.....1001
  - Middle Siren...1003
  - South Siren....1002

## TESTING

- Testing of the sirens will be done according to Illinois state law, the first Tuesday of each month at 10:00 a.m. or during disaster training exercises.

**CABOT RESPONSE**

**CABOT ALARM PROCESS**

- Fire, spill or vapor cloud is observed on site
- On site Emergency Number (x2222, 253-5722) is called or radio communication initiated
- Control room sounds site emergency alarm (Evacuation or Shelter In Place)
- Cabot ERT (EMS and/or Haz Mat) is paged on site response, Cabot off site response if needed
- Confined Space Rescue needed
- Tuscola Fire Department is paged as needed

**PERSONNEL RESPONSE**

- All personnel should report to South Station
- Make a double roster of men responding:
  - One for Tuscola
  - One for Cabot representative at the main gate upon arrival
- Ride on apparatus if possible, or car pool
- Once at Cabot: **STAY WITH THE APPARATUS**
- If driving your personal vehicle, the primary parking location is the “Contractor” gravel parking lot (north of the Plant Administration Building by the main gate), **NOT ALONG THE DRIVEWAY**. Then report to Main Gate (North West of Plant Administration Building) and get on the roster. Parking location may be subject to change depending on the location and severity of the incident.
- Note weather conditions (wind direction, storms, etc.), weather conditions and/or incident location/severity may warrant a switch in gate location from the main gate to another vehicular gate this will be communicated as TFD is dispatched or a Cabot representative may communicate this upon arrival at the site.
- Tuscola Fire Department Incident Commander should meet up with the Cabot site Incident Commander, this will most likely be in the Plant Conference Room in the Plant Administrative Building (Emergency Operating Center)

**EQUIPMENT RESPONSE**

- Engine 93
- Rescue 95
- Truck 99
- Ladder 96

**Notes: Engine 92 should remain in town.**

**Officer in charge:** This is an out of the city call and provisions for covering the city should be made per SOP 400.

**SEE ATTACHMENTS:** Cabot Tuscola Plant Layout July 2010.pdf

## CONCEALED CARRY FIREARMS

### **PURPOSE**

- To guide Tuscola Fire Department personnel in complying with Illinois concealed carry laws, and provide guidance when patients or victims are found with a concealed carry firearm on their person, while providing a safe environment for personnel, patients, family members, and members of the public.

### **SCENE SAFETY**

- Scene safety remains the top priority for responders. If the responders feel that there is a valid life threat to themselves, then Law Enforcement should be notified and responders should stage in a safe area until the scene is deemed safe by Law Enforcement.

### **TRAINING**

- Tuscola Fire Department will provide all TFD personnel with appropriate firearm awareness training and basic firearm safety and handling instructions.
- Any personnel not having had the appropriate training should not handle firearms at a scene.

### **PROCEDURE**

- **Response Guideline**
  - TFD responders who are licensed to carry a concealed firearm, and are doing so at the time of a call, should secure their firearm either at home, or in their personal vehicle, prior to entering the station, apparatus, or scene.
  - If you find a firearm during a call, immediately notify your supervising officer and Incident Command.
  - If possible, **Law enforcement should be utilized FIRST** to secure firearms found on patients and victims. TFD responders should make every attempt, within reason, to **NOT** handle or transport any firearms. If patient condition and safety concerns allow, the patient himself should secure the firearm at home or in their personal vehicle.
- **Patients with Altered Levels of Consciousness**
  - If a firearm is found on an awake patient with an altered level of consciousness, Responders should not attempt to have the patient hand over the firearm on their own.
  - Responders should not attempt to disarm a patient that they feel would potentially use the firearm against them. Law enforcement should be notified and they should secure the firearm.
- **Unresponsive Patients**

- If a firearm is found on an unresponsive patient requiring immediate care, and law enforcement is not on scene, Responders will need to carefully separate the firearm from the patient.
  - If the firearm is in a holster, the entire holster should be removed from the patient.
  - Once removed, the firearm should be unloaded and secured in the glove compartment of R-95 and locked by an officer. As soon as possible, the officer should give the key to the IC.
- **Deceased victims**
    - Safeguard the scene and wait for the Coroner.
    - Inform the Coroner of the firearm and he can then remove and secure it.

## **Background**

*Effective January 1, 2014, Illinois citizens can obtain a permit to legally carry a concealed firearm. Emergency responders and healthcare providers are likely to encounter an increasing number of such firearms. The potential for inadvertent harm to emergency responders as they care for these patients is a concern. Appropriate guidelines and training should be followed to reduce the risk of harm, most significantly, the accidental discharge of a firearm. In Illinois, hospitals are declared “no carry zones” as individuals not exempt (Law Enforcement) are prohibited from bringing firearms into the structure. (PA 098-0063, Section 65.7). Also, Ambulances and or any Emergency Response Vehicles are declared “no carry zones” as individuals not exempt (Law Enforcement) are prohibited from bringing firearms into the vehicle. (PA 098-0063, Section 65.5, 7-8) (5) Any building or portion of a building under the control of a unit of local government is declared “no carry zones”.*



**TESTING RADIOLOGICAL MONITORING EQUIPMENT**

**PROCEDURE**

- On the first meeting night of each quarter month, all radiological monitoring equipment at each station shall be tested for proper operation and to verify that all batteries are in good condition.

**RADIOLOGICAL MONITORING KIT**

- One (1) CD V-700 Survey Meter with Earphones
- One (1) CD V-715 Survey Meter
- One (1) Dosimeter Charger
- Numerous Dosimeters
  - Model CDV138
  - Model CDV142
- Six (6) D cell batteries
- One (1) Instrument Pamphlet
- One (1) Operator's Manual

**CDV – 700 SURVEY METER TEST**

- The CDV – 700 is a low range instrument with the meter scaled in mr/hr. It will detect and measure gamma radiation with the probe shield closed and detects beta radiation with the probe shield open.
- Operational Check:
  - Install batteries
  - Turn selector switch to the x10 range and allow 30 seconds for the instrument to warm up
  - Fully open the probe shield
  - Place open area of probe as close as possible to the test source on the side of the instrument
  - The meter reading should be between 1.5 and 2.5 mr/hr
  - If the reading is not within the above interval, the reading should be noted. This reading should remain the same during future operational checks
  - A low reading may indicate weak batteries. If so, replace the battery and repeat check. A reading at the top of the scale may indicate problems with the instrument

**CDV – 715 SURVEY METER TEST**

- The CDV – 715 will measure gamma radiation only. It has a meter scale of 0-500 R/HR
- Operational Check:
  - Install battery
  - Rotate selector switch to zero position and allow the instrument to warm up for two minutes
  - Rotate zero knob until pointer is on zero of the meter scale

- Rotate selector switch to Circuit Check position and hold. The meter should give a reading in or near the red area marked Circuit Check
- If instrument does not indicate the Circuit Check reading, replace battery and check again

### **DOSIMETERS**

- The only test for dosimeters is to look through them while aiming the dosimeter at a light source and verifying a reading other than zero, the dosimeter should be recharged and recalibrated
- To recharge and recalibrate a dosimeter:
  - Place a battery in the dosimeter charger
  - Remove the cap and press the dosimeter firmly down on the charger contact
  - Hold the dosimeter in this position for 20-30 seconds to allow the dosimeter to sufficiently charge
  - With the dosimeter still in the charge position, rotate the calibration control knob to zero the hairline indicator

### **BATTERY CARE**

- To maximize battery life and avoid corrosion of the instruments, always remove all batteries from the instruments

**GAS DETECTION EQUIPMENT****MSA PORTABLE COMBINATION METERS  
MODEL 260****PURPOSE**

- The MSA Portable Combustion Gas and Oxygen meter consists of two distinct detection units housed in a case. The combustible gas sensor has a range of 0-100% of the lower explosive limit (LEL); calibrated on Pentane; the oxygen portion a range of 0-25%.
  - Each indicator has its own alarm light but shares a common alarm horn
    - The gas indicator alarms at 10% LEL
    - The Oxygen indicator alarms when the oxygen level drops to 19.5%
  - The combustible gas “Zero” adjustment knob and oxygen calibration knob are mounted on the instrument face panel. Both knobs are clutch type to avoid unintentional change of “Zero” settings
  - The alarm reset button and a push button for checking battery conditions are also on the face panel
  - An integral rechargeable 2.4-volt battery powers the unit. A fully charged battery should yield 8-10 hours of continuous use

**OPERATION**

- Before attempting a measurement, the combustible gas meter should be “zeroed” and the oxygen meter calibrated to 20.8% in fresh air
  - All circuits including the alarms are activated when the off-on horn switch is moved to the on position
- When the needle of either meter reaches the preset alarm point, the horn sounds and the appropriate red alarm light turns on. **Note: The horn can be silenced by moving the off-on-horn switch to the horn-off position**
  - At which time the meter light will flash. It will continue to flash as long as the instrument is operating and the knob remains in the horn position
  - When the combustible concentration drops its set point or the oxygen goes above its set point, the horn silences automatically but the visual alarms remain lighted until the circuit is RESET manually
  - The Model 260 Monitor continuously and simultaneously monitors levels of oxygen and combustible gases
  - The unit is equipped with a line trap as water trap and a 5 foot synthetic rubber sampling hose
- Due to the complexity of the monitoring equipment, all repairs, recalibrations and sensor replacements should be referred to the Safety Officer

**GAS DETECTION EQUIPMENT****MSA PORTABLE COMBINATION METERS  
MODEL 360****PURPOSE**

- The MSA Portable Indicator and Alarm meter, Model 360, consists of three distinct detection units. The instrument is designed to monitor areas for oxygen deficiency as well as for carbon monoxide and/or combustible gases.
  - The combustible gas detection sensor has a range of 0-100% of the lower explosive limit (LEL) calibrated on Pentane
  - The oxygen sensor, a range of 0-25%
  - The carbon monoxide sensor, a range of 0-500 PPM
- Each indicator has its own alarm descriptor but they share a common horn
  - The combustible gas indicator alarms at 25% LEL
  - The oxygen indicator alarms when the oxygen level drops to 19.5% or increases above 22%
  - Carbon monoxide indicator alarms when the concentration reaches 35 PPM
  - The combustible gas and carbon monoxide “zero” adjustment knobs and the oxygen calibration knob are mounted on the instrument face panel. **Note: The knobs are clutch type to avoid unintentional change of settings**
  - Model 360 can be used as a semi-continuous monitor. A full battery charge gives 8-10 hours of continuous monitoring. **Note: A “BATT” indicator is activated when the battery pack’s charge is approaching its lowest usable state.**

**OPERATION**

- Turn the switch on to manual before attempting a measurement. The combustible and toxic “changes” should be zeroed and the oxygen portion calibrated to 20.8% in fresh air.
  - First turn the main switch to manual and push the select button to display each item (oxygen, toxic and LEL)
  - “Oxygen”....Turn calibration knob to display 20.8%
  - “Toxic”.....Turn calibration knob to display 0.00
  - “LEL”.....Turn calibration knob to display 0.00
- All circuits, including alarms, are activated when the function switch is moved to the on position (scan or manual)
  - When the signal in any channel reaches its preset alarm point, the horn sounds and the appropriate alarm descriptor turns on. **Note: Moving the function switch to the HORN OFF position, at which time the HORN OFF light will flash, can silence the horn. It will continue to flash as long as the instrument is operating and remains in the HORN OFF position.**

- The horn silences automatically when the combustible concentration or carbon monoxide goes below their respective set point or when the oxygen goes above or below its set point. At the same time the visual alarms remain activated until the circuit is reset manually.
- The Model 360 is a gas monitor, which continuously and simultaneously monitors levels of oxygen, carbon monoxide and combustible gases. **Note:** Only one is displayed on the instrument's Liquid Crystal Display (LCD). When the main switch is turned to manual the select button may be pushed for a readout of each gas, which will appear on the display. The last gas selected will remain on the display until the select button is pressed or the switch is turned to scan. When the instrument is first turned on it will automatically display the oxygen readout.
- Although only one gas can be displayed at a time all of the alarm circuits are active and continuously monitoring for unsafe conditions.
  - If any of the gases reaches a preset safety limit the audible and visual alarms are activated immediately
  - The audible alarm is a high pitched tone
  - The display panel will indicate which gas or gases caused alarm activation. The LCD will continue to display the readout of the gas range until the system has cleared or been reset
- Due to the complexity of the air monitoring equipment all repairs, recalibrations or replacements should be referred to the Safety Officer.

**SELF-CONTAINED BREATHING APPARATUS (SCBA) AND BREATHING AIR COMPRESSOR****PURPOSE**

To provide operating procedures and guidelines for the use of SCBA and the breathing air compressor, that complies with OSHA CFR Title 29 - 1910.134 and the Tuscola Fire-Rescue Respiratory Protection Program, in order to provide a safe working environment for firefighters when respiratory hazards are present.

- The Tuscola Fire Dept. maintains 20 or more SCBA (**FireHawk M7 Carrier and Harness**), and 20 or more additional spare air bottles to protect a firefighter from the respiratory hazards in an environment that presents an immediately dangerous to life and health atmosphere.(IDLH) Those atmospheres shall include:
  - Oxygen deficiencies
  - Elevated temperatures
  - Toxic gases
  - Smoke

**\*Note: Areas where any of the above is present, will be considered the "Hot Zone"**

- During emergency response to fires, confined space rescue, hazardous materials incidents and any other incident presenting these respiratory hazards; the maintenance and proper use of the SCBA is essential to safe operation at these incidents.

**References**

- OSHA
- NFPA
- MSA manuals
- Tuscola Fire-Rescue Respiratory Protection Program

**General Information**

- All firefighters are issued a personal SCBA Face Piece (**FIREHAWK M7 FACEPIECE**) and carrying bag. Maintenance on the face piece will be the firefighter's responsibility. **NOTE:** (Repairs are to be made by certified personnel ONLY)
- No Firefighter should wear an SCBA unless they have passed the SCBA medical evaluation and Face Piece Fit Test. (reference TFD Respiratory Protection Program)
- No firefighter should wear SCBA who has facial hair beyond the jaw line or facial hair deemed to affect the SCBA face piece seal.
- SCBA should only be donned over appropriate PPE according to NFPA standard 1971.

- SCBA should be worn in the “**Hot Zone**” at any incident presenting any of the above mentioned respiratory hazards or *possible* development of respiratory hazards.
- All SCBA should be checked *monthly* and recorded using the SCBA Inspection forms. (attached)
- All SCBA used at an incident should be inspected, cleaned, sanitized, and dried according to MSA instructions.
- Used air packs and bottles should be re-filled and placed back on the apparatus in the “ready” position. This information should be recorded using the SCBA Inspection Log. (attached)
- All SCBA Bottles will be required to be hydrostatically tested. Test dates are to be recorded using the SCBA Bottle Test form. (attached)

**\*Note:** All SCBA cylinders require periodic hydrostatic testing as required by 49 CFR 180.205. The frequency of the maintenance depends upon the cylinder material.

1. Steel cylinders should be tested every five years. They have an indefinite service life until they fail a hydro test.
2. Aluminum cylinders (not including hoop-wrapped) should be tested every five years. They have an indefinite service life until they fail a hydro test.
3. Hoop-wrapped cylinders should be tested every three years. Hoop-wrapped cylinders have a 15-year service life.
4. Fully wrapped fiberglass cylinders should be tested every three years. They have a 15 year service life.
5. Fully wrapped Kevlar cylinders should be tested every three years. They have a 15-year service life.
6. Fully wrapped carbon fiber cylinders should be tested every five years. They have a 15-year service life.
  - SCBA Cylinders should not be recharged if the hydrostatic test date on them, stamped or labeled, is not current. If an SCBA cylinder is found to be out of hydrostatic test date the bottle will be immediately taken out of service and the officer in charge will be notified.

## **PROCEDURE**

### **SCBA**

- Reference MSA manuals and the TFD-MSA air pack Information sheet (attached), for proper donning, doffing and operating instructions, for both air pack and the face piece.
- Firefighters meeting all requirements will be trained in donning, doffing, shifting and dumping procedures for the air pack.
- **Always** check your air gauge before donning air pack, insuring there is sufficient air in the bottle.
- Donning the SCBA will be by the “over-the-head” method where SCBA are mounted on the apparatus in this fashion (upside down).
- Some SCBA are mounted in the (upright) position which allows a person to pull the pack onto the back and secure it without having to use the “over the head” method.

- Face pieces will be donned with straps tightened, securing face piece for a proper seal.
- Perform a vacuum seal test with your hand over the inhalation valve to confirm a proper seal.
- During fire and haz-mat incidents, the face piece must be covered by pulling the Nomex hood over the top of face piece and securing it around the lens of the face piece.
- Open the bottle valve to interact the pack with the face piece.
- Attach regulator that is mounted to the belt of the pack, to the face piece.
- After doffing the air pack, all straps are to be extended to the maximum length in the “ready” position.

### **Personal Alert Safety Systems (PASS) Device**

- Reference MSA manuals and the TFD-MSA air pack Information sheet (attached), for PASS device operating procedures.
- Where any hazardous situation requires use of SCBA, the PASS device should be activated.
- A Pass device may be de-activated if the SCBA is not being used.

### **Breathing Air Compressor**

- All valves, on any filling station, are to be finger tip tight. **DO Not** over tighten/loosen these valves!
- The breathing air compressor takes in air from the station, which may be contaminated by apparatus, so the air should be checked before operation of the compressor with the 4-Gas meter for O<sub>2</sub> and CO. (reading 20.8% O<sub>2</sub> & 000 CO PPM). This is very important since the CO indicator is not readily visible.
- To operate the compressor, follow the “Air Charge Operating Procedures” **6.0** of the **Mako** Air Charge Owners Manual.
- Maintenance, according to the number of hours on the hour meter, should be performed according to the Maintenance section **7.0** of the **Mako** Air Charge Owners Manual on file in the Tuscola Fire Department records, recorded and initialed in the SCBA records.
- Air quality tests (to grade D air standards) should be performed yearly on air from the compressor and cascades according to NFPA standards. This information is to be recorded and initialed, and certificate filed. A copy of the certificate should be sent to outside agencies using our compressor for filling air bottles. (i.e. Cabot Corporation)

### **Recharging Cylinders from the Cascade**

- Check hydrostatic test date (do not recharge if out of test date)
- Inspect the cylinder for damage
- Fill rate should be 300-600 psi per minute so the bottle does not get too hot.
- Follow the “cascade system” instructions **3.2** from the **Mako** Fill Stations M2000 Series Owners Manual.



- In addition to instructions **3.2**:
  - Step #3 – Be sure the regulator is set properly for the bottle pressure, i. e. capacity of the bottle you are filling, **BEFORE you start filling.**
- \***Note:** Always check the label on the SCBA bottle or a stamped indication on the bottle for the appropriate bottle pressure capacity.
  - Always return the regulator to “no pressure” (all the way to the left) when you are finished filling bottles

## **TFD-MSA Airpack Information**

### **Backpack Frame**

- 800# Capacity Rated for Lifting

#### **ICM-TX**

- Heads-up display
  - Intermittent display of lights, only flashes as 25% change in bottle volume
  - To check level, push green button x1
  - To keep constant display on, push green button and hold for 3-5 seconds, audible acknowledgement
  - To turn constant display off, push green button and hold for 3-5 seconds, audible acknowledgement
- Pass Device
  - 3 warning pre-stages, all of which can be reset by movement of ICM-TX
  - 4<sup>th</sup> stage requires manual reset of yellow button x2
  - Manual activation of Pass is done by pressing white button on front of unit
- Green button
  - Press 1x for backlight display and H.U.D.
  - Push and hold for 3-5 seconds for constant on and constant off
- Heat Alarm – (small round silver sensor on front of ICM-TX)
  - Activates with sustained temperature of 800°F or greater for 2 minutes or longer
  - Activates with sustained temperature of 200°F or greater for 6 minutes or longer
  - Only way to reset is to exit the environment and allow unit to cool

#### **Maintenance**

- Change batteries once a year minimum
- Crystal Lube the following components after cleaning
  - Thin coat where regulator mounts on mask
  - Thin coat on regulator o-ring
  - Thin coat on clear-command o-ring
- Thumbscrews should be hand-tight only!
- Wipe down masks for cleaning, **DO NOT SUBMERGE!**
  - Alcohol wipes
  - 50% alcohol and 50% distilled water solution



## TUSCOLA FIRE DEPARTMENT

## S.O.P. #504

Effective Date: 02-16-95

Updated: Reviewed: 2013

Approved: Steve L. Hettinger  
Chief

## GAS DETECTION EQUIPMENT DRAGER DETECTION

### PURPOSE

- To cover the use and maintenance of the various types of detection equipment on Rescue 95.

### PROCEDURE

- Drager Gas Detection Pump
  - The Drager Gas Detection Pump provides the Tuscola Fire Department with the capability to test the environment of an area for toxicity and contamination. The benefits to be derived by the use of this tester are limited only by the variety of detector tubes kept on hand.
  
- Drager Tubes
  - Dragger Tubes have a shelf life of two years
  - The tubes have a measure scale of either:
    1. PPM (Parts Per Million)
    2. MG/L (Milligrams Per Liter)
    3. VOL% (Percentage of Volume)
  - Dispose of contaminated tubes following the manufacturer's recommendations
  
- Drager Bellows Pump
  - The pump is made of neoprene and opens automatically after compressing the bellows.
  - The limit chain allows the operator to observe when one pump stroke is complete. **Note: Newer models, which have a counter, should be set on "0" before beginning the contamination check.**
  - The bellows pump supplies a volume of 100 cm<sup>3</sup>
  
- Inspection Operations
  - Inspect the bellows pump for leakage
    - Place an unopened detector tube in the detector
    - Squeeze the bellows
    - If the bellows does not expand (the chain is not taut), the pump does not leak.
  - Select the proper gas tube to be used
  - Be aware that each tube, indicated by the n=, denotes the number of strokes to be taken for each test. **[Example: n=10, pump the bellows 10 times]**
  - Break off the tips of the Drager tube

- Use the break-off eyelet on the break-off husk
  - Insert the Drager tube in the pump so that the arrow on the tube points toward the pump
    - The tube should fit securely so that by-pass air cannot be sucked into the unit.
  - Set the Counter to “0” if new type
  - Hold the pump in the hand with the fingers resting on the front plate
  - Compress the bellows **COMPLETELY** and release it
  - The end of the stroke is achieved when the limit chain becomes completely taut
  - After completing the prescribed number of strokes, observe the tube for discoloration
  - Compare the scale on the tube with the threshold limit valve (TLV) for the respective tube (which is in the pamphlet kept in the appropriate box of tubes)
  - If the Drager tube shows a negative reading, no discoloration whatsoever, the ends of the tube may be recapped and the tube may be used again in the future. **Note: Used tubes should not be placed back in the case upon completion of all testing, but disposed of.**
- 
- Maintenance
    - When the Drager Gas Detector Pump is frequently used, the rubber diaphragm and screen should be inspected monthly and replaced if necessary.

HOSE (Testing)

**PURPOSE**

- Testing hose helps insure the operability of the hose and safety of personnel during emergency situations.
- Test procedures and safety of personnel during the test.

**PROCEDURE**

- PPE: Boots, Gloves, Pants, Helmets with face-shields down when tightening couplings. Gloves only when loading hose.
- Before starting the test, make a black mark with a marker behind each coupling.
- Fill all hose runs with water to 45 psi (pounds per square inch) and check for leaks
- Tighten couplings
- Raise pump and hose runs to test pressure slowly. It should take approximately 10 seconds to get to the recommended test pressure (see below) from 45 psi or 25 seconds from 0 psi.  
5" hose - 200 psi test pressure  
3" hose - 250 psi test pressure  
2 1/2" hose - 250 psi test pressure  
1 3/4" hose - 250 psi test pressure.

**DANGER: While raising the pressure and during test, all personnel must be at least 15 feet away from all hose, couplings and appliances. All personnel must only approach hose from the left side of the hose layout. Left is determined as you look away from the pumper to the end of the hose run.**

- Test pressure is 200 or 250 psi for 5 minutes
- Observe couplings for stretch, i.e., space between coupling and black mark. **DANGER: Do not stand around or over couplings under pressure.**
- After the test is completed, reload hose. Any hose that has a coupling slipped away from the mark should be rolled backwards (male coupling out) and placed in a stack in the station for re-coupling.

## PERSONAL ALERT SAFETY SYSTEMS (PASS)

### PURPOSE

- A downed or disoriented firefighter inside a structure poses a severe rescue problem. Personal Alert Safety System (PASS) devices are designed to assist rescuers attempting to locate the firefighter, even in dense smoke. **Note: DETEX PAL 5+ meets the requirements of NFPA 1982 and NFPA 1500.**

### PROCEDURE

#### ALARM

- If the firefighter should collapse or remain motionless for approximately 30 seconds, PASS device will emit a loud, pulsating shriek. It can also be activated manually.
- The PAS 5+ also contains a heat sensor. This sensor is strictly designed to warn the wearer that the internal temperature of the unit has reached the maximum operating limit of the electronic components. (Heat alarm: triple intermittent tones.)

#### OPERATING MODES

- The unit has four (4) operating modes of operation:
  1. OFF – The off mode disconnects battery power from the unit. The unit must be turned off to cancel and reset the alarm when triggered by the motion sensor.
  2. AUTO – The motion sensor is activated in the AUTO mode. If no valid motion is detected in a 23 second period, the pre-alert signal will be activated. If no valid motion is detected during the next 7-second pre-alert period, the full alarm will be triggered. (Full alarm: 100dba @ 10 feet)
  3. LOW BATTERY – The low battery sensor is active in the Auto mode. If the battery is depleted to the point that it can no longer drive the alarm at full volume, the low battery signal will sound, one tone every 10 seconds; LED flashes once every 5 seconds.
  4. HEAT SENSOR – The heat sensor is activated in the Auto mode. If the internal temperature of the device exceeds the maximum operating limit of the electronic components, the heat alarm will sound; triple intermittent tones. **Note: If you want to hear what the heat alarm sounds like without exposing the device to heat, listen to the triple intermittent tone that sounds when you place the unit in the auto mode.**

- The PASS unit should be attached between the regulator and the back plate on the left side of the SCBA on the waist strap.

#### ACTIVATING

- Activate the PASS unit at the time of entry as follows:
  - AUTO – Turn the knob so the indicator mark lines up with the auto mark on the knob strap. The unit will emit a triple tone to indicate that the auto mode is active. The LED will flash once per second.
  - ON – Turning the unit to the “on” position can be used in case of an emergency of a down firefighter. The full alarm will sound.

#### TESTING

- The PASS unit should be tested at the time of inspecting the SCBA units. All tests should be performed as follows:
  1. Turn the knob to ON. The full alarm should sound.
  2. Push and turn the knob to OFF.
  3. Turn the knob to AUTO. One set of triple intermittent tones should sound.
  4. Place the unit on a smooth, motionless surface.
  5. After approximately 23 seconds, the pre-alert should sound.
  6. With the pre-alert sounding , move the unit enough to cancel the pre-alert.
  7. Place the unit back on the surface. Wait for the pre-alert to sound.
  8. After approximately 7 seconds of pre-alert, the full alarm should sound.
  9. Pick up the unit and shake it vigorously. **It should NOT reset!**
  10. Push and turn the knob to OFF. The alarm will cancel.

## AERIAL LADDER

### RESPONSE

- Ladder 96 will respond to all structure fires. Operators should be familiar with the American LaFrance (ALF) Ladder and Pump manual .
- Only qualified operators (certified by the chief and chief engineer) should drive and operate this truck.

### OPERATION

- Spot the truck according to the officer instruction with the laddering objective in mind.
- Get spotting instructions before reaching the incident scene, even if you have to stop a block away, to avoid over committing.
- When spotted in the best location proceed with setup per the ALF manual. Set brakes and place wheel chocks. Check for overhead obstructions, especially power lines. Always use jack pads and avoid unsure surfaces.....especially grass or sod. If water tower operation is needed, one Engineer will need to be at the pump panel and one on the turntable.

### **NEVER allow the ladder to bear against a support!**

**It has no strength in that situation and damage to the ladder is likely.**

- The operator controls access to ladder.
- Operator should observe all loading and extension limits stated on operators panel. Observe inclinometer and extension indicators
- Avoid use in high winds; i.e. 25 m.p.h. or more.
- Avoid uncertain outrigger ground support, like sod.
- Do not operate ladder with people on it unless an extreme emergency.
- Do no move the truck without retracting and bedding the ladder and outriggers.
- Operators should not leave the turntable while in operation and should have a spotter if possible.
- Do no spot other apparatus directly behind the truck (ground ladder removal)
- The only time there should ever be firefighters on the ladder is for access to objectives like a roof or window for ventilation or rescue, etc. and for needed direction of the water tower. Otherwise no one should be on the ladder.

### WATER TOWER USE:

- Do not make sudden changes or shut-downs in supply pressures.
- When water tower operations are completed, be sure to open the



- WATER TOWER DRAIN before retracting the ladder.
- The operator should always be aware of conditions at the top of the ladder, especially when it is manned, and be ready to move the ladder and the man at the top out of harms way if it becomes necessary. **The man at the top is the operator's responsibility.**
  - The firefighter at the top of the ladder during water tower operations is there for only one reason; to see where the stream should be directed. Therefore, **if visibility is reduced to the point he can no longer see, or his eyes are not needed, he should not be up there.**
  - The firefighter at the top of the ladder can communicate with the Engineer at the turntable and the pump operator's panel via the intercom boxes at those locations.

**MAINTENANCE:**

- According to the ALF manual.

## SQURT (TRUCK 99)

### RESPONSE (In the City)

- Truck 99 will respond only when specially called by the incident commander.
- Mutual Aid Response will be as requested and according to S.O.P. #400 and #401.
- Operator should be familiar with the “Squirt Operations and Service Manual”
- Only qualified operators (certified by the Chief and Chief Engineer) will operate this truck.

### OPERATION

- Spot the truck according to the officer’s instructions. Get spotting instructions before reaching the incident scene, even if you have to stop a block away to avoid over committing
- When spotted in the best location:
  1. Set all brakes.
  2. Place transmission in neutral and depress clutch.
  3. Engage the P.T.O. and observe red indicator light.
  4. Turn on the electric throttle switch.
  5. Look around for overhead obstructions; i.e. wires, trees, poles, etc.
  6. Place jack pads on outriggers and extend both sides (2 ea.) until truck raises slightly and is level (adjust independently as needed).
  7. Mount the rear tailboard. **CAUTION: Do not use boom-operating handle as an aid to mounting tailboard. If the boom is up and flowing water, the drastic move could damage the boom.**
  8. Turn the master switch, electric throttle switch, and light switch on.
  9. To unfold and position booms, unfold upper boom approximately 15 degrees, then raise lower boom clear of the boom support. The booms may then be unfolded, raised or rotated in any sequence to position them into a work position which will be dictated by the job and work area. **CAUTION: Always meter the controls by moving the control handle slowly and smoothly until the desired function starts to move.**
- Water Tower Operation
  1. Set the nozzle flow control to maximum flow position before water is released through the Squirt booms.
  2. Assuming a water supply has been established, open the 3 gate valves at the rear panel. **CAUTION: Water will**

**now flow to the nozzle, therefore be sure the nozzle is pointed in a safe direction.**

3. Observe the pressure gauge and adjust the flow control for the best possible straight stream – and a pressure of around 125 p.s.i.. **Note: The nozzle is remotely adjustable to any flow between 300 GPM and 1000 GPM.**
  - a. Adjust the flow control slowly and a little at a time, observing the pressure gauge so as not to exceed maximum working pressure of 200 p.s.i..
  - b. Maximum and minimum flows, pressures, and heights of boom figures are on the operators panel, but the operator can, as a general rule of thumb, obtain an efficient stream at spray flow and boom elevation by maintaining an inlet pressure of 120-130 p.s.i. This can, of course, be controlled by adjustment of the flow orifice on the nozzle.
4. When operations are finished, drain the boom (drain valve-lower end of center post standpipe) and store booms. **Note: The upper boom will move quite quickly at the end of its travel, (when near the saddle position) and it may be desirable to slow the drive engine to an idle by turning off the throttle switch.)**
5. Retract the outrigger and disengage the P.T.O. **Note: Check to see nozzle is stowed pointing down!**

#### **EMERGENCY OPERATION:**

The SQRU is provided with an emergency hydraulic pump, which will operate the unit at reduced speed should the vehicle engine fail, resulting in a loss of the main hydraulic system. This pump is driven by a 12 V.D.C. motor connected to the electrical system of the vehicle. To operate the SQRU with this system, just turn on the emergency pump with the "A" or "B" switches located on the upper portion of the operator's control panel and operate the unit in the same manner as with the main system. Operation using the emergency pump should be limited to twenty minutes to prevent over heating 12 volt motor.

#### **CAUTIONS:**

- **Extreme care should be used when operating the SQRU with the upper boom near the operator's control station.**
- **Use extreme care when operating the boom in or around overhead electrical wires.**
- **Operator should operate SQRU only while standing on rear step.**
- **Do not operate the SQRU without the outriggers set.**
- **Use bearing pads under outriggers any time unit is operated off hard surface (concrete, etc.)**
- **Do not attempt to move the vehicle with the booms elevated.**
- **Do not attempt to move the vehicle with the P.T.O. engaged.**
- **Use care when operating the nozzle flow (from maximum to minimum) adjustment, so as not to exceed the maximum operating pressure of 200 p.s.i.**

**MAINTENANCE:**

According to the "Squrt Operations and Service Manual",  
Section II - Maintenance

## TUSCOLA FIRE DEPARTMENT

## S.O.P. #700

Effective Date: 12-30-92

Updated: 02-01-2010 Reviewed: 2013

Approved: Steve L. Hettinger  
Chief

## INITIAL ORIENTATION AND TRAINING OF NEW FIREFIGHTERS

### PURPOSE

- To give the new firefighters a general knowledge of the fire stations, command structure, and standards and ethics of the Tuscola Fire Department. To begin their training with a general knowledge of fire behavior and extinguishment methods, tools and appliances, hydrant connections, hoses, fire suppression, communications, ladders, ventilation, forcible entry, overhaul, S.C.B.A., rescue, truck operations, and hazardous materials.

TRAINING TEXT: Firefighter's Handbook – 2<sup>nd</sup> Edition

### I. ORIENTATION

- Be loyal to the Fire Department and fellow firefighters. "We are a family."
- Be interested in and dedicated to the job.
- Be careful what you say and do; "We are in the public eye."
- Be dependable; "We are a team."
- Accept criticism; "No one is perfect. If you don't do anything, you won't make a mistake."

#### Command Structure:

Chief	Steve Hettinger
Asst. Chief/Safety & Haz Matt Officer	George Wineland
First Lt.	Kevin Endres
Second Lt./ Training Officer	Chip Haake
Third Lt. / Rescue Officer	Brian Moody
Fourth Lt.	Mark Maxey
Fifth Lt.	Bill Hemmer
Chief Engineer	Jim Nees
E.M.S. Officer	Joe Victor
Chaplain	Joe Carter

Fire Phone: 911 and 253-2341

South Fire Station: 253-4631(non-emergency)

2341 is the combination to the station man-way doors.

23410 is the code for all of the overhead doors.

Assignment: **Read Chapters 1, 2, 3**

## II. PPE, TOOLS & APPLIANCES

Identification and location:

Pike Pole – 3 sizes	Hydraulic Jack
D-handle shovel	Come-a-long (chain & cable)
Hydrant Wrench	Air Bags
Spanner Wrench	Air Chisel
Pick-head Axe	Cutting Torch
Flat-head Axe	Chains & Frame Hooks
Pry Axe	Back Boards
Crow Bar	Oxygen Unit
Pry Bar	Cribbing
Halligan Tool	Blankets
Roof Saws	Rescue Harnesses
Smoke Ejectors	Stokes Basket
Ladders	Small Hand Tools / Boxes
Hand Lights	Hose Brass
Hose Rope Tool	Hose Clamp
S.C.B.A	Hose Ramp
Fire Extinguishers	Hose Roller
Rope	Hose Jacket
Hacksaws	Wye
Bolt Cutters	Siamese
Chain Saw	
Hydraulic Rescue Tools: Kinman Combination Tool Rams Hand Spreaders Hand Cutter American Tools Spreader Cutter Ram Power Unit	Nozzles Fog Solid Stream Master Stream Water Curtain Foam  Hose Couplings Male – Shank has lugs Female – Swivel & Smooth Shank

Assignment: **Read Chapter 6**

### III. S.C.B.A.

- Explain what SCBA stands for, and that they are often referred to as air packs.
- Toxic atmospheres dictate the use of SCBA to function effectively and or stay alive – oxygen deficiency, high temperature, smoke, and toxic gases.
- SCBA allow us to make aggressive interior attacks and rescue.
- Two types:
  - Closed circuit (re-breathers, use O2 not air)
  - Open circuit (uses air, demand and pressure demand)
  - Components:
    - Air cylinder
      - 30 min., 4500 psi, 45 cu. Ft.
      - Steel – complete assembly = 45 lbs.

- Fully wound aluminum/fiberglass = 33 lbs.
    - Carbon Fiber = 28 lbs.
  - Cylinder valve and gauge
  - High pressure hose with low pressure alarm.
  - Regulator; high pressure to breathable pressure.  
Inhaling creates a vacuum on the diaphragm, opening the admission valve. Exhaling closes the admission valve and opens the exhalation valve in the face piece.
    - BY-PASS VALVE – RED
  - Face piece
  - PASS
- Donning:
  - Coat method (Explain, demonstrate, and practice)
  - Over-the-head method (Explain, demonstrate and practice)
- Problem solving:
  - DON'T PANIC!!!!
  - Use red by-pass valve.
  - If your face piece becomes damaged or is ripped off, breathe directly from the regulator.
  - Buddy Breathing – Shared Mask, Shared, Regulator, Kaminsky
- Changing bottles at the fire scene:
  - Single Firefighter method
  - Two Firefighter method
- Recharging cylinders and returning assembly to ready condition. (Explain how it is done from both the main cascade and the cascade on Rescue 95)
- Inspection – Explain that it is done regularly

Assignment: **Read Chapter 7**

#### IV. HOSE & HYDRANT CONNECTIONS

- Discuss forward and reverse lay.
- Show location of suction lines on each engine.
- Take the engine out and go through the process.
- Discuss and show each hose load.
  - Pre-connects
  - Wye and connected 1 ½"
  - Hydrant hose-lays
  - 5" Supply Line
- Remove hose from both a flat and accordion load and reload.

Assignment: – **Read Chapters 9 & 10**

#### FIRE BEHAVIOR AND EXTINGUISHING METHODS

- Fire Behavior
  - Phases of fire
  - Back draft
  - Flash over
  - Classes of fires; A, B, C and D
- Extinguishment methods and examples:

- Temperature reduction – water (one gallon of water will absorb 9,330 BTU of heat when converted to steam.)
- Fuel removal – burns down
- Oxygen dilution – CO<sub>2</sub>
- Chemical flame inhibition – dry chemical, Halon
- Explain portable fire extinguishers
  - Ratings
  - Types
  - Classes
  - May not be used very often, but they can be an effective tool until the hose line is stretched. Also, as a firefighter you should be able to advise citizens of which type and size extinguisher they need for a particular use.

Assignment: **Read Chapters 4, 5 & 8**

## FIRE SUPPRESSION

- Remove hose from hose bed and advance to a fire room. (use meeting room)
  - Feel the door
  - Bleed Air
  - Set Pattern
  - Stay low and out of opening while opening the door.
- Explain the following:
  - Direct attack
  - Indirect attack
  - Combination attack
  - Stress the following:
    - Don't put water on smoke.
    - Water expands 1700 times when converted to steam.
    - You may upset the thermal balance in the fire room if too much for pattern is used.
- Show how to loop and sit on a two and a half inch hose with nozzle, and how to hold using a rope hose tool.

Assignment: **Read Chapter 11 & 19**

## LADDERS

- Discuss each type of ladder and its location, uses and carries.
- Raise a 35', 28' or 24' extension ladder and climb.
- Deploy a roof ladder to a pitched roof from an extension ladder.
- Carry a tool and show its use from an extended ladder using a leg lock.
- Carry a hose up a ladder and show its use from an extended ladder using a leg lock.

Assignment: **Read Chapter 14**

## BUILDING CONSTRUCTION

- Describe the relationship between loads, imposition of loads and forces
- List and define four structural elements
- Identify the effects of fire on fire common building materials
- List and define the five general types of building construction
- List and define hazards associated with alternative building construction types
- List five building collapse hazards associated with fire suppression operations



- List five indicators of collapse or structural failure that might be found during fire suppression operations.
- Take a tour of buildings of different types of construction throughout Tuscola and discuss the different types of tactics/hazards for each.

Assignment: **Read Chapter 13**

## FORCIBLE ENTRY & VENTILATION

### Forcible Entry:

- Try before you pry
- Tools
- Safety when using tools
- Breaking glass
- Watch out for self closing fire doors

Assignment: **Read Chapter 17**

### Ventilation:

- Definition
- Advantages
- Three types of ventilation
  - Vertical
    - As close to over the fire as possible.
    - As high as possible.
    - Take tools to ventilate the ceiling as well! Cut a large hole, 4' x 4' (don't cut supporting members).
    - Observe wind direction.
    - On flat roofs extend ladder at least 3 rungs above roof edge. On pitched roofs use roof ladder.
    - Raise a second ladder for second escape route from roof.
    - Utilize natural openings (scuttle holes, sky lights and ventilators).
    - Safety must be considered around electrical wires and while swinging tools.
    - Start power saws on the ground.
    - Always watch out for weak roofs.
  - Horizontal
    - Windows, doors, etc.
    - Observe wind direction.
    - Only use when attic is not involved
  - Mechanical ventilation
    - Smoke ejectors and powered fans.
    - Observe wind direction.
    - Channel air – set fans 3-10' back from doors.
    - Frame door with a cone of air.
  - All types of ventilation must be coordinated with fire attack or fire will increase and spread.
  - NEVER PUT WATER IN A VENT HOLE!

Assignment: **Read Chapter 18**

## X. SALVAGE, OVERHAUL & FIRE CAUSE AND DETERMINATION

- Definitions
- Explanation

- Tools - pike pole, axes, Halligan tool
- Searching for hidden fire – You don't want to have to come back
  - Sight
  - Touch
  - Sound
- Be careful – The building has already been weakened by fire.
- Loss control
  - When moving large things outside remember these are peoples' belongings and property. Treat them as if they were your own!
- Evidence Protection
  - KEEP EVIDENCE WHERE IT IS FOUND!
  - Don't move anything unnecessarily until an officer instructs you otherwise!
  - All Firefighters have the responsibility of determining fire cause.
  - Determination is made by:
    - Preserving evidence
    - Proper use of fire streams
    - Being observant!
    - Report anything you think might be significant to an officer immediately.
- Conduct and Statements at the scene
  - DO NOT MAKE STATEMENTS OF ACCUSATION, PERSONAL OPINION OR PROBABLE CAUSE BECAUSE SOMEONE IS ALWAYS LISTENING!

Assignment: **Read Chapter 20**

## RESCUE

- Vehicle extrication:
  - Use old car and show each operation.
    - Stabilization with cribbing
    - Glass removal
    - Battery cable cut
    - Door removal
    - Dash roll
    - Dash raise
    - Seat pull / push
    - Operation of air bags
    - Air chisel

Assignment : **Read Chapter 16**

## ENGINE/PUMPER OPERATIONS

- Driving safety:
  - Drive defensively:
  - Red lights and siren do not give you the right of way!
  - When in POV using Blue Light, ALL TRAFFIC SIGNALS MUST BE OBSERVED!!
- Pumping procedures
  - Demonstrate and practice the following:
    - Engine Placement
    - Hydrant Hookups
    - Drafting Procedures
    - Relay Pumping

- Water shuttle:
  - Discuss organization of tankers at both fill and dump sites, for greatest possible water supply.
  - Discuss Friction loss
  - Discuss Negative aspects of a vacuum
  - Discuss Water Hammer
- THE ENGINEER MUST KNOW THE LOCATION OF EVERY ITEM ON THE APPARATUS!! When firefighters cannot find something they look to their Engineer.

## HAZARDOUS MATERIALS AWARENESS

- Primary Rule: IF YOU DON'T KNOW DON'T GO!!
- Rule of Thumb: If you cannot cover the entire spill, container, and/or resulting cloud with your *Thumb*, you are too close.
- Identify Material: Use placards, shipping papers, manifests, U.N. numbers, and container shapes.
- DOT Emergency Response Guidebook:
  - Use of name list and U.N. number list.
  - Use of response guides.
  - Chemtrec –1-800-424-9300
  - Other services available
- County Response Plan: A multi-agency coordinated effort.
- If you decide to approach; approach from up-hill and up-wind.
- Position all equipment accordingly.
- Plan for decontamination.
- Wear proper personal protective equipment. (ppe)
- Hazmat Personal Protective Equipment:
  - Level A
  - Level B
  - Level C
  - Level D
- Types of hazardous materials:
  - Ask for and give examples of each and other related hazards.
  - **Every Good Fire Fighter Ought 'ta Practice Recognizing Corrosive Materials**
    - Explosives; A,B,C, and blasting agents.
    - Gases; flammable, non-flammable, poisonous, and corrosive
    - Flammable liquids;
      - flashpoint below 0° F
      - flashpoint between 0° F and 73° F
      - flashpoint between 73° F and 141° F
    - Flammable solids:
      - spontaneously combustible materials,
      - Materials that are dangerous when wet.
    - Oxidizers and organic peroxides;
    - Poisonous and etiologic; infections materials
    - Radioactive materials; classes I, II, III, IV
    - Corrosives;
    - Miscellaneous hazardous materials;
- Levels of State Fire Marshall Hazmat Certifications
  - Awareness level – Recognize and Notify – 12 hours.
  - Operations level – Defensive action 80 hours.

- Technician level – Offensive action 80 hours.
- Specialist – Specialized knowledge 80 hours.
- Incident Command – 40 hours.

Assignment: **Read Chapters 24-29**

#### Firefighter Survival

- Accountability:
  - TFD Tags
  - Roll Calls
- Personal Fitness
- Risk vs. Benefit
  - Risk a lot to save a lot
  - Risk little to save little
- Saving our Own Techniques
  - Denver Drill
  - Firefighter Drags
  - Use of Webbing
- RIT Teams
- Rehab
- CISD

Assignment: **Read Chapter 23**

#### EMS

- First Responder
  - Roles & Responsibilities for TFD
  - Relationship with Arrow
  - Scene Safety
  - Patient Assessment / Vital Signs
  - CPR
  - Bleeding Control

Assignment: **Read Chapter 22**

#### Ropes and Knots

- Tuscola is Confined Space/Vertical Rescue Provider for County
- Rope Materials & Construction
- Fire Service Knots
- Rope Maintenance
- Riggings
- Patient Packaging

Assignment: **Read Chapter 15**

#### Terrorism Awareness

- Types
- Potential Targets
  - U of I
  - Newport, Indiana VX Nerve Gas Disposal Facility
- Terrorism Indicators
- Clandestine Labs
- Warfare Agents
- Terrorism Agent Detection

Assignment: **Read Chapter 30**

## Public Education & Fire Prevention

- Asst. Chief George Wineland in Charge
- Grade School Presentations
- Safety Trailer
- Sparky – No talking
- Engine 94 & 94 ½ Operations
- Smoke Detector / CO Detector Supply Program

Assignment: **Read Chapter 21**

## **CADET PROGRAM FOR NEW FIREFIGHTERS**

### **PURPOSE**

- To set forth guidelines by which new personnel are trained and operate within the Tuscola Fire Dept. until they complete the department's CADET program.

### **DEFINITIONS**

- Cadet: A person, who has been approved by the City of Tuscola for employment, has filed all required paper work with the city and the department, is at least eighteen (18) years of age, and is training to become a Tuscola Firefighter.
- Probation: The time spent as a Cadet.

### **PROCEDURE**

- Cadets will be the responsibility of the Training Officer as described in SOP 203.
- While on emergency calls for the Tuscola Fire Department, Cadets should always be under direct supervision of an officer, or at the discretion of an officer, a senior FF. Further, Cadets should only be allowed to perform tasks that they have been trained for prior to the call.
- Cadets should follow all Tuscola Fire Dept. SOPs unless they contradict guidelines set forth in this SOP 701.
- Cadets will be on probation until the department training officer graduates them from the Tuscola Fire Dept. training program, as outlined in SOP 700 - INITIAL ORIENTATION AND TRAINING OF NEW FIREFIGHTERS.
- Cadets who are high school students:
  - Will not be allowed to answer calls from 10:00 PM to 6:00 AM when they have school on the following day.
  - Will not be allowed to carry their pager at school or respond to a call while they are in school.
  - The Chief of the Tuscola Fire Department has absolute discretion to nominate an individual to become a member of the Tuscola Fire Department or to become a Cadet, subject to appointment by the Mayor, with the advice and consent of the city council. Whether or not a high school student shall be allowed to become a Cadet will be determined on a case by case basis looking at the totality of the circumstances for each candidate in conjunction with the need for additional Cadets and the number of high school students who have already been admitted into the Cadet program. The completion of high school is encouraged for all of those who hope to join the Tuscola Fire Department; in the event that a Cadet candidate intends to, threatens

to, or does drop out of high school, he or she will likely be removed from the Tuscola Fire Department.

- In the event that it comes to the attention of the Chief of the Tuscola Fire Department that a Cadet currently enrolled in high school is receiving poor grades at school or that a Cadet's grades have declined since becoming a Cadet, he or she will likely be removed from the Tuscola Fire Department.
- No high school student shall receive a rank higher than Cadet or complete the Cadet program until he or she has successfully graduated from high school.

## EMERGENCY MEDICAL SERVICE (EMS) REQUEST

### PURPOSE

- To provide assistance to the local ambulance service when requested, and guide response and operations at all EMS related calls and situations.

### PROCEDURES

- During all EMS operations personnel should keep in mind that blood borne pathogens may be present. See SOP 302 and 400
- EMERGENCY and NON EMERGENCY calls.
  - Rescue 95 will respond. Personnel may respond to the South Station or the scene. Personnel response should be as follows:  
***EMS/Medical calls: by DAY or NIGHT assignment, plus all officers. (Note: apparatus response SOP does not change). This will be strictly for EMS/Medical calls only. If additional help is needed, call for a second alarm. If it involves rescue, and or fire, all personnel should respond on the first alarm.***
  - **EMT or First Responder certified** personnel should take the lead, while non – EMS certified personnel should provide support.
  - At the scene, personnel not directly involved in treatment of the patient, or support of ambulance personnel treating the patient, should stage at the fire apparatus for possible assignment and support.
  - Ambulance personnel will frequently request TFD to drive the ambulance so that both ambulance personnel are available for patient care, and may even request additional help for patient care. If you respond to the call, you should be prepared to assist if given either of these assignments.
  - When the ambulance service does request TFD personnel to drive and assist with patient care, the TFD officer in charge should promptly assign personnel to the task. TFD personnel should then take direction from the ambulance personnel and return to Tuscola with them.
- Personal Protective Equipment for Responding to EMS calls
  - Helmet with face shield or safety glasses
  - Bunker coat or coveralls
  - Bunker pants or coveralls
  - Latex gloves
  - Boots



**DOUGLAS COUNTY FIREFIGHTER'S ASSOCIATION  
MUTUAL AID STANDARD OPERATING GUIDELINE #101**

**Mutual-Aid Operations**

Approved: January 12, 1998  
Revised and Approved: April 10, 2006  
Reviewed: 2013  
DCFA president: Steve L. Hettinger

**Purpose:**

To outline guidelines for mutual-aid response among the parties to the Douglas County Firefighter's Association (DCFA) Mutual-Aid agreement. This outline will help facilitate a safe, efficient, and effective use of the manpower, materials and equipment, supplied during a mutual-aid response, helping assure a safe and more positive outcome of such an event.

**Incident Command System:**

- The DCFA, through its mutual aid agreement, and through adoption by its individual members and municipalities, and this Operational SOG, has adopted the National Incident Management System (NIMS) and therefore will use the Incident Command System (ICS) at all Douglas County Mutual Aid Incidents, and expand it as the incident grows. If necessary it should transition to Unified Command (UC).
- An Incident Command Center (ICC) will be established in a location selected by the Incident Commander (IC) that provides him/her with the greatest advantage of overseeing the largest majority of the emergency operation.
- The ICC will be designated by a green flashing or rotating light that will be positioned high enough to be visible within a reasonable line of sight distance, and 360 degrees in all directions.
- The IC should remain in the ICC if at all possible and designate other officers of his/her choosing to handle Sector or Divisional Operations, Communications, Liaison, Staging, Logistics, Planning, Safety, etc.
- The Douglas County EMA Command Van may be requested by any member to enhance the IC's resources or to establish an Emergency Operations Center (EOC).
- All mutual aid groups should remain in staging until they are given an assignment by the IC or Staging Officer. Every "Operating Unit or Group" should have its own officer and every "Sector" or "Division" should have an officer in charge.
- Remember! "Span of Control" is critical at large incidents involving large numbers of responders and equipment. Officers and firefighters within each Sector should communicate only with their Sector Officer. Sector Officers should communicate only with the Operations Officer. Operations, Logistics, Planning etc. can then communicate directly with the IC (limiting his span of control to a manageable level). The IC CAN NOT communicate with every firefighter and "Agency" or "Branch" with a radio on the fire ground!

## **Mutual-Aid Operations**

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### **Incident Command System continued**

- Once you have begun an assignment requested by the IC or Staging Officer, do not abandon that responsibility for another task. If you complete the task or assignment, report that to Operations. If your task does not require all of the resources you have available in your Sector, send those resources back to Staging.

### **Radio Communications:**

All radio traffic should be kept to an absolute minimum. Repeaters should not be used for fire ground operations unless necessary for outside communications.

Agencies responding to a member agency requesting mutual-aid assistance should report their location and status at the following times, locations, and using these methods:

- **Paging:** Paged out on normal frequency for page. For most agencies this is the County Fire frequency.
- **In Route (Leaving Station):** One transmission on the County Fire frequency to Douglas County dispatch (not the IC or Incident scene!) that all responding equipment and personnel is in route and approximate ETA to scene.
- **Travel to Scene:** NO TRANSMISSIONS...STAY OFF RADIO EXCEPT IN EXTREME EMERGENCY OR IF CONTACTED DIRECTLY BY THE IC.
- **Arrival at Scene:** Stage a block or two back from the scene. The commanding officer from the incoming agency should dismount their vehicle, locate the ICC, locate the IC and/or Staging Officer, and do a face-to-face to receive instructions for placement of equipment of personnel.
- **Placement of Personnel and Equipment:** The commanding officer of the incoming agency should then return to his personnel and equipment and place them using the least amount of radio communication possible.

## **Mutual-Aid Operations**

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### **Radio Frequencies:**

The DCFA Mutual-Aid Association has assigned the following frequencies for the following operations in the case of a Mutual-Aid response by member agencies:

- 154.130 - Douglas County Fire Frequency. Used for fire paging and fire ground communications (when used for fire ground, repeaters should not be used).
- 154.265 - State-wide mutual-aid Frequency (and other MABAS Frequencies) Use for Tanker shuttle operations, or staging frequency as designated by the IC or his/her designee. May also be used for additional operations frequencies.
- 155.055 - IREACH - Not to be used for normal fire ground communications except in extreme circumstances. May however be used when necessary to ease the amount of traffic on the two previous channels or to talk to other agencies.

NOTE: Some agencies in Douglas County also operate their own private frequencies for paging and fire ground use. These may also be used in addition to the frequencies listed above.

### **Evacuation Signal:**

- The Evacuation signal will be CONTINUOUS BLASTS OF ALL APPARATUS AIR HORNS.
- The Evacuation Signal means that ALL personnel will drop all assignments and all equipment and immediately leave the HOT Zone or Building/Collapse Zones. THERE WILL BE NO EXCEPTIONS OR DEVIATIONS FROM THIS ORDER TO EVACUATE!
- The Evacuation signal may be continued until the IC is assured that all personnel have cleared the HOT Zone and have been accounted for.

**DCMA - SOG #101**

**Mutual-Aid Operations**

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## **May-Day Signal:**

- The May-Day signal will be the use of the actual words “May-Day” on the radio or by word of mouth.
- The use of the words “May-Day” over any radio or by any responding personnel designates that there are responders down and rescue response is immediate and necessary.
- As soon as a “May-Day call is received by the IC all operations should cease, and rescue of down personnel will take priority. (The only exception to this rule would be where in the IC’s judgment ceasing an operation would put responding personnel and those calling for help in more serious danger.)
- The IC’s first action after receiving the “May-Day” call and focusing operations towards the rescue is to deploy the Rapid Intervention Team (RIT). The purpose of the RIT is discussed later in this document.

## **Rapid Intervention Team (RIT):**

- At a Mutual-Aid response the IC will designate a team of firefighters as the RIT.
- An RIT should be established as early in the incident as possible.
- The RIT will be held in reserve in case of a “May-Day” call and will only be deployed for this reason.
- If the situation develops to need to use the RIT for manpower, this team of people will not be released until a replacement group in equal or better physical condition is in place to meet the requirements of an RIT.
- Use of an RIT is suggested as a part of all responses for all agencies covered by the Douglas Country Mutual-Aid agreement and not just those involving Mutual-Aid.

# DAMAGE ESTIMATE REPORT

The level of damage should be identified by the number in the table, or pictures, that best describes the level of damage suffered by the majority of the structures and/or infrastructure within the area you have been assigned.

## STRUCTURAL DAMAGE

1	Low	Structures are basically intact with the exception of roof coverings, and wall siding, shutters, missing or damaged.
2	Moderate	Structures are intact with some structure damage, portions of roofs missing, buildings open to the weather.
3	High	Roof missing and structure open to the weather, some walls intact, extensive damage to accessory structures
4	Extensive	Roof and/or walls missing, buildings and accessory structures destroyed.

## FLOODING DAMAGE

1	None	May have minor street and/or yard flooding.
2	Low	Random street and yard flooding.
3	Moderate	Streets may be impassable, flooding in buildings.
4	Extensive	Streets are impassable, flood waters are standing in buildings.

## INFRA-STRUCTURE DAMAGE

1	None	Minor debris and tree limbs in roads, all roads all open.
2	Low	Some debris, utility lines down with minor random street flooding.
3	Moderate	Secondary roads are impassable due to debris, utility poles/lines and/or trees and flooding, major roads have limited access.
4	Extensive	Major roads and bridges are impassable due to debris, utility poles/lines and or trees, flooding and erosion.

## REPORT

1. Location \_\_\_\_\_
2. The structures look like what description # or picture # \_\_\_\_\_
3. The flooding is like what description # \_\_\_\_\_
4. The infra-structure is like what description # \_\_\_\_\_

