

# Washington Township Fire Department Standard Operating Procedure

Division 200: Emergency Operations  
Section 203: Fire Suppression  
Subject 203.04: Suppression Operations - General  
Supersedes: S.O.G. B1.1-1.8 (7/13/92)



## Approved By:

Date: May 31, 2005

Page: 1 of 8

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## PURPOSE:

To provide a fire suppression operational guideline, in general terms, for the use of apparatus, equipment and personnel.

## RESPONSIBILITY:

Members will deploy and suppression forces utilized in a manner that provides the most effective and efficient outcome to intervene in, mitigate conditions, and bring to a logical conclusion those circumstances that threaten life or property. Further, that all members shall become familiar with and use the provisions of this policy, and refresh themselves as necessary to maintain their effectiveness.

## PROCEDURES:

### Strategy & Tactics

The placement, deployment, and utilization of suppression forces shall be accomplished in a manner that is planned, anticipated, and accomplishes their intended purpose. Levels of uniformity and/or predictability exist for each incident that allows for the implementation of a strategic plan that will satisfy certain tactical priorities. During 80% of the time, full first alarm assignment suppression forces will arrive on the scene of an emergency structural incident in less than eight minutes after the completion of member turnout/reflex time. [An annual measurement of reported statistics for emergency, fixed property, multiple (two or more companies) apparatus responses with turnout/reflex time ending when members are protectively clothed and mounted on apparatus, wheels beginning to roll, and voice announcement made about being enroute.]

Tactical priorities will identify at least three functions that must be completed or significantly stabilized during the incident.

1. Life Safety – primary search, rescue, and treatment of victims while either negating or minimizing threats to suppression force personnel. Accomplished rapidly for any directly affected person when threatened by life ending or injuring events. Operations revolve around this priority until primary search and the treatment of all victims is completed.
2. Fire Control – activities required to stop the forward progress of the incident and bring to a control point. Support of the Life Safety priority is accomplished and implementation of either an offensive or defensive intervention to gain control.
3. Property conservation – activities required to stop or reduce additional loss to property. Commitment of resources, as soon as practical, to reduce or prevent property loss.

## **Subject:           Suppression Operations - General**

Date:    May 31, 2005

Page:   2 of 8

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### Arrival & Verbal Reports

Suppression forces will respond to incidents on an emergency basis, unless otherwise stated in a specific policy (e.g. carbon monoxide investigations, leaking water, etc.). When arriving at an incident, each apparatus shall report via radio communication of their arrival, location, and what they are doing. Later arriving apparatus will then be able to plan their course of action(s) as described below. Particularly important is the coordination of handline and supply line deployment and use. Supply apparatus will alter their action(s) if supply is already established, or if they are to take up a different position and action when protection systems are in place. Supply for the attacking engine shall be announced via radio communication so as to inform incident command. Additional radio communications will be completed to initiate incident command procedures.

### General Apparatus Placement

The placement of first arriving forces at an incident is based upon risk analysis, pre-incident planning, and conditions upon arrival. Forces are placed to maximize their advantage and build upon the successful implementation of the action plan that is established to intervene in conditions and bring about effective mitigation or conclusion. Placement of apparatus will be a reflection of one of, or a combination of:

- Standard operating procedure
- Pre-arranged staging procedure
- A direct order from command
- A conscious decision of the officer on the apparatus based on existing or predictable conditions
- Aggressive offensive strategy when conditions permit

### Engine Suppression Operations

Generally, suppression operations originating from engine companies will include search, rescue, treatment of victims, laying and pumping hose lines, contain and extinguish fire, use water resources to its best advantage, perform support activities, and conserve property. Incident conditions or circumstances will dictate what other functions are or are not performed by an engine company.

### Fixed Property, Working Fire; First Arriving

During working fires, the first arriving engine company shall locate near the structure (assuming a fixed property incident) to lead the attack or, in defensive operations, protect the heaviest exposure. Actual apparatus placement shall not interfere with ladder company placement. Initial priorities, unless circumstances dictate otherwise, are for deployment of offensive, interior 0-250 gpm handlines to initiate fire control and to support and protect the primary search and rescue operations. If a mid-pumper company has placed a handline to attack the fire, the first engine shall support that work by placing another handline to their position and switching the mid-pumper company handline over to a connection on the first engine. Until proven otherwise, all members shall consider interior atmospheres encountered Immediately Dangerous to Life and Health (IDLH). As such, members will

**Subject:           Suppression Operations - General**

Date:    May 31, 2005

Page:   3 of 8

---

---

be assembled in complete structural firefighting ensembles, with self contained breathing apparatus, and follow initial attack procedures consistent with OSHA 1910.134(g)(4) (“2 in/2 out”) provisions.

The first arriving engine company should avoid laying its own supply hose as it will be supplied by later arriving companies. Deviations from laying supply hose are acceptable if the first arriving engine can spot directly on a hydrant, the operator can lay a very short distance to a hydrant, when it is obvious that master streams will be initially deployed, or a significant delay is expected from other companies. (The supply engine has been involved in a crash, is having mechanical problems, is responding from a remote location as the fourth or fifth due engine, or has not even been dispatched as part of the initial response.) If a “forward”/“straight” hose lay is used by the first arriving engine, a four way hydrant valve shall be used on the hydrant.

Fixed Property, Working Fire; Second Arriving

During working fires, the second arriving engine company shall provide water supply to the first engine by laying hose from the first engine to a hydrant (reverse lay). (If the first arriving engine has established its water supply, the second arriving engine will go to Level 1 Staging.) Supply hose lines shall maximize available water. Supply at a Low Risk occupancy may be supplied with at least a single five-inch diameter hose. Incidents at other fixed property occupancies that are Moderate Risks, High Risks, and Special Risks shall be supplied by a dual lay consisting of a single five-inch diameter hose, and a single three-inch diameter hose. (NOTE: Refer to “References” for additional information, definition and explanation of the various Risk data.) Supply hose work shall be performed by the Driver/Operator and one crewmember. While following Passport Accountability procedures, the remainder of the crew will either report to command for orders, the Resource Assignment for rehabilitation/re-assignment of personnel, or the first arriving engine.

The hydrant being dressed for water supply shall have the steamer connection and at least one 2 ½” connection used. The 2 ½” connection will be dressed with a hydrant gate valve. Initial flows will be started through the steamer connection, using five inch hose to the pump. After the initial flow has started, a three inch hose can be connected from the hydrant gate valve and to the pump.

Fixed Property, Working Fire - Exceptions; Second & Third Arriving

The second arriving engine will not supply the attack engine when a fixed property is equipped with a Fire Department Connection (FDC) that is part of a sprinkler and/or standpipe system. If an FDC is present, the second arriving engine will proceed with supplying that fixture/system as described below. The third arriving engine now has the responsibility to take over the operation of supplying the first arriving engine, as described above. When the third engine is not supplying hose, they would initially go to Level 1 Staging and await orders. Supply hose work shall be performed by the Driver/Operator and one crewmember. While following Passport Accountability procedures, the remainder of the crew will either report to command for orders, the Resource Assignment for rehabilitation/re-assignment of personnel, or the first arriving engine.

The engine supplying the Fire Department Connection (FDC) shall maximize available water. The hydrant used for this supply shall be dressed and used as described above. In circumstances where limited hydrants are available, the engine supplying the FDC shall use the closest hydrant. Under no

## **Subject:           Suppression Operations - General**

Date:    May 31, 2005

Page:   4 of 8

---

---

circumstances shall one hydrant be used to supply the FDC engine and the attack engine. Hose lines connecting from the pump to the FDC shall be three inch in diameter. Sprinkler system only FDC's shall be pumped at 150 psi. Standpipe and integrated Sprinkler/Standpipe system FDC's shall be pumped at 200 psi.

### Ladder Suppression Operations

Generally, operations originating from ladder companies will include search, rescue, treatment of victims, forcible entry, use of ground ladders, ventilation, provide access to and checking for fire extension, control utilities, provide lighting, operate aerial streams, and perform salvage and overhaul. Initially ladder companies will begin search and rescue or ventilation and/or obtain orders from command. Incident conditions or circumstances will dictate what other functions are or are not performed by a ladder company.

Ladder companies require strategic placement at an incident. Aerial ladder and tool deployment from this apparatus is essential to complete priorities. In many instances a ladder company will be at the face/front/Side A portion of a fixed property occupancy to perform necessary operations.

### Midi-Pumper Suppression Operations

During working fires operations for the midi-pumper will include search, rescue, treatment of victims, providing an initial handline to protect victims and rescuers, providing a quick knockdown or containment of the fire, extending an initial handline to a safe location, disconnecting the handline from the midi-pumper and leave for re-connection to the first engine to supply then upon receiving water, begin search and rescue operations, or perform reconnaissance and establish command. Due to the limited capabilities of the midi-pumper, the decision to enter an involved structure shall be made by the incident commander or, in his absence, the officer or senior crewmember of the midi-pumper.

### Rescue Suppression Operations

During working fires operations for rescue companies will include search, rescue, treatment of victims, forcible entry, ventilation, lighting, provide access to and checking for fire extension, provide salvage and overhaul, and extricate victims. These operations will be coordinated with ladder company operations. Initially rescue companies would locate as close as practical to the scene and begin search and rescue or obtain orders from command. Incident conditions or circumstances will dictate what other functions are or are not performed by a rescue company.

### Air Cascade Suppression Operations

During working fires operations for air cascade companies will be to provide spare air bottles, additional SCBA, air bottle refill, and minor SCBA service or repairs. Incident conditions or circumstances will dictate what other functions are or are not performed by a ladder company.

### Medic Suppression Operations

**Subject:           Suppression Operations - General**

Date:    May 31, 2005

Page:   5 of 8

---

---

During working fires operations for medic crews will be to provide life support care for the ill and injured, and medical evaluation of members at the scene of any operation where strenuous or dangerous activities take place. During response, medic apparatus will yield or otherwise give way to fire apparatus. Initially medic crews would locate near the Resource Assignment for manpower/rehabilitation. Incident conditions or circumstances will dictate what other functions are or are not performed by a medic crew.

Tanker Suppression Operations

During working fires operations for tanker companies will include the transportation of water to areas beyond a water system, or to areas where a water supply is inadequate and must be supplemented. Also, a tanker can act as a reservoir for small fires or can shuttle water to deployed drop tanks. Incident conditions or circumstances will dictate what other functions are or are not performed by a tanker company.

Brush Suppression Operations

Generally, operations originating from brush fire companies will be to control ground cover fires, brush fires, outside fires with limited or difficult access, or any other outside type fire that only requires very low volume water flow and quantity. Incident conditions or circumstances will dictate what other functions are or are not performed by a brush fire company.

Fixed Property, Nothing Showing

Apparatus arriving at fixed property occupancies where there is nothing visible or showing will typically locate and initiate operations based upon unknown conditions. The first arriving engine, ladder, and midi-pumper companies will locate at the best and easiest access point, with the ladder considering aerial and tool deployment and the midi-pumper leaving ample space for engine and ladder placement. Engine and midi-pumper members will proceed with investigating conditions, while the ladder members will standby at their apparatus, or assist as assigned. Other arriving companies will proceed with Level 1 Staging and standby their apparatus. If the occupancy is equipped with sprinklers and/or standpipes, the second arriving engine company will proceed to the Fire Department Connection (FDC) and standby in preparation for supplying the FDC.

Fixed Property, Fire Protection System Operation

Apparatus arriving at fixed property occupancies equipped with sprinklers and/or standpipes where there is a water flow signal sounding, or reported smoke (by alarm company or caller) in the building will perform as described in the immediately previous paragraph with the following exceptions. The second arriving engine will proceed to the Fire Department Connection (FDC) and lay a dry supply hose from the FDC to the closest hydrant. The third arriving engine will locate at the first engine and prepare to reverse hose lay to a hydrant. (Supply hose work shall be performed by the Driver/Operator and one crewmember. While following Passport Accountability procedures, the remainder of the crew will either report to command for orders, the Resource Assignment for rehabilitation/re-assignment of personnel, or the first arriving engine.

**Subject:           Suppression Operations - General**

Date:    May 31, 2005

Page:   6 of 8

---

---

Fixed Property, Other Response Incidents

Apparatus arriving at fixed property occupancies reporting other fire events or public service calls such as bonfires, ceremonial fires, cooking fires, electrical equipment malfunction, fire alarms, garbage fires (refuse, rubbish, trash, etc.), heating/cooling equipment malfunction, lock out, mulch fires, odors, recreational fires, smoke sightings, utility hazards (transformers, wires down, etc.), vegetation fires, water problems, weather/storm damage, wildfires (brush, crop, forest, grass, trees, woods, etc.) will follow nationally recognized standards to intervene, mitigate, and/or otherwise bring to logical conclusion such incidents. Members at an incident where the atmosphere is, could become, or threatens to be Immediately Dangerous to Life and Health (IDLH) shall be fully clothed in the complete structural firefighting ensemble of clothing, including self-contained breathing apparatus.

Other Dangerous Atmospheres

When arriving at an incident reported to have either an explosive or flammable atmosphere (e.g. a natural gas leak), the first arriving engine, ladder, and midi-pumper shall stop short and locate at least 100 feet from the building or atmospheric condition. Members either at or in such environments shall be fully clothed in the complete structural firefighting ensemble of clothing, including self contained breathing apparatus, if the atmosphere is, could become, or threatens to be Immediately Dangerous to Life and Health (IDLH). All other arriving apparatus shall go to Level 1 Staging.

Mobile Property Intervention & Operations

Apparatus arriving at mobile properties reporting fire events or public service calls such as aircraft crashes or fires (includes balloons, helicopters, planes), automobile fires (includes cars, passenger vehicles, etc.), bicycle incidents, bus fires, camper fires, compactor fires, construction vehicle fires (includes bulldozers, backhoes, etc.), dumpster fires, fork lift fires, heavy equipment fires (includes cranes, etc.), home garden vehicle fires (includes lawnmowers, shredders, etc.), motor home fires, motorcycle fires, rail vehicle fires (includes locomotives, etc.), recreational vehicle fires, trailer fires (includes non-equipment type items that can be towed by another vehicle), trolley fires, truck fires, watercraft fires(boat, personal watercraft, sailboat, etc.) will follow nationally recognized standards to intervene, mitigate, and/or otherwise bring to logical conclusion such incidents. Members at an incident where the atmosphere is, could become, or threatens to be Immediately Dangerous to Life and Health (IDLH) shall be fully clothed in the complete structural firefighting ensemble of clothing, including self-contained breathing apparatus.

Limited Access Highway Operations - General

Apparatus responses to limited access highway (interstates) incidents involving multiple pieces of apparatus shall maintain close radio communications with the anticipated incident commander. Prior to committing to the direction of travel on the interstate, apparatus will re-confirm the location and pertinent information. If apparatus is staged, such function shall be completed in a safe, flexible position while awaiting further orders. Further specific limited access highway procedures are detailed in a specific policy.

Personnel Accountability & Resource Assignment

**Subject:           Suppression Operations - General**

Date:    May 31, 2005

Page:   7 of 8

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Members operating at an incident scene shall comply with the policies for the Passport Accountability System. While following Passport Accountability procedures, excess or later arriving personnel at an incident shall report to incident command or the Resource Assignment for rehabilitation/re-assignment of personnel. Within this assigned area, personnel will be kept in assigned crews, or otherwise formed into operational crews according to Passport Accountability System procedures for further deployment. Personnel shall possess all necessary protective clothing and equipment, and a basic cache of tools when reporting to this area.

Incident Reports & Investigations

Each reportable incident (as defined by the Ohio and National Fire Incident Reporting System) shall have a written Primary Incident Report completed on the form furnished for such use. Due to the broad number of and nature of personnel responding to fire incidents, it must be established by supervisors as to exactly which individual will be completing the incident report. Other members may be delegated duties to collect, organize and otherwise assist in report submission. Such reports and any necessary supplemental reports shall be completed and submitted in accordance with other established policies for Incident Reporting System procedures. Any requests for copies of reports shall be routed through the chain of command for processing and fulfillment.

Investigators may be summoned to assist in and complete the investigation of a fire incident to determine its cause and/or circumstances. Such work shall be in accordance with other established policies for Request for Fire Investigator.

Staging

Level 1 Staging – Apparatus/vehicles staged in their direction of travel, uncommitted, approximately one to two blocks (300’-600’) from the emergency scene and await further orders. (This adds two layers of specificity beyond the Miami Valley Fire/EMS Alliance Incident Command System procedures, and as such will be followed during normal department operations.)

Level 2 Staging – Apparatus/vehicles report to a formal Staging Area designated by command and await further orders.

Level 3 Staging – Apparatus/vehicles will remain in station on standby, or if already responding, downgrade their response to non-emergency and proceed to the closest safe area, off the roadway if possible, to stand by and await further orders. (This level of staging is unique to Washington Township, and will be used accordingly to complement operations.)

**References:**

RISK INFORMATION, DEFINITION, AND EXPLANATION

**Subject:           Suppression Operations - General**

Date:    May 31, 2005

Page:   8 of 8

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(Blended data from Miami Valley Fire/EMS Alliance Incident Command System Appendix 1, and Commission on Fire Accreditation International, Standards of Cover Manual, Chapter 2, pages 8-9)

LOW RISK - < 1,000 GPM/MINUTE

Detached garages	Motor vehicle crash
Grass fires	Sheds
Low fuel fires	Vehicle fires; includes tractor trailers

MODERATE RISK – 1,000-2,000 GPM/MINUTE

Aircraft, on an airport	Mobile homes
Detached single family dwellings	Multi-family; older, easily reached
Loss of life or property value limited to occupancy	< 10,000 sq.ft. Commercial or industrial

HIGH RISK – 2,000-4,000 GPM/MINUTE

Aircraft, off airport  
Built up areas with high concentration of property  
    With substantial risk of life loss, high dollar impact on community or environment  
Low occupant load but high fuel load or hazardous materials  
Multi-family; concentrations of older structures  
Multi-family; 2 stories or less and requires major hose deployment

SPECIAL RISK - > 2,000 GPM/MINUTE

All buildings where available water is less than calculated fire flow	
Government and infrastructure	Packing sheds
Hospitals	Refineries
Industrial with >3,000 gpm fire flow requirement	Schools
Multi-family; >25,000 sq.ft.	Vacant structures
Nursing homes	Warehouses

International Fire Service Training Association (IFSTA)

*Essentials of Firefighting, 4<sup>th</sup> edition*

National Fire Protection Association (NFPA)

*NFPA 295 Standard for Wildfire Control*

*NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*

*NFPA 1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments*

*NFPA 1901 Standard for Automotive Fire Apparatus*

Occupational Safety & Health Administration (OSHA)

*1910.134 Respiratory Protection; Subpart I – Personal Protective Equipment*