1 PURPOSE

To provide guidelines for department members when operating in severe weather conditions.

2 SCOPE

This procedure applies to Department members.

3 ACCREDITATION REFERENCE

5A; 5D; 5E; 5F; 5K

4 PROCEDURE

To ensure adequate number of emergency response apparatus are staffed for high activity levels. Severe weather includes, but is not limited to: heavy rain, hail, flash flooding, lightning, high winds, tornadoes and ice storms. Severe weather has traditionally increased calls received regarding downed electrical power lines, lightning strikes, auto accidents, flooding, wind damage, stranded motorists, etc.

5 RESPONSIBILITIES

Department members must be aware of hazard areas that are included in the demand zones.

The Shift Commander and Station Officers will monitor the daily weather conditions. When severe weather is anticipated this procedure should be implemented as outlined.

The Shift Commander will determine the resource deployment level necessary to ensure staffing levels are adequate to handle the service level demands.

6 COMMUNICATIONS

A component in operating safely and effectively during severe weather is the ability to communicate. Department members may be required to operate with alternate communication methods of communications.

ALTERNATIVE COMMUNICATIONS

Johnson County Emergency Communications Center operates as the back-up Public Service Access Point (PSAP) and dispatch center for Douglas County Emergency Communications Center (DCECC).

The Douglas County Mobile Communications Center can be placed in a strategic location to provide better range in the event that the fixed communications centers cannot be used.

When imminent weather is approaching, Company Officers will turn on portable radios to maintain contact with the communications centers. Portable radios should have fully charged batteries and spare batteries should immediately be charged to allow for extended talk time as needed.
In the event the public and cellular phone systems become overloaded or damaged due to the storm. Department members must minimize personal and non priority calls during these peak times.

In the event computer network system may fails, the City of Lawrence Information System Network Manager may need to be contacted.

7 STATION PREPARATIONS

Station officers must ensure bay doors can be operated manually prior to the arrival of severe weather. Loss of electrical power to stations will cause the overhead doors to fail. Manual operation of opening bay doors without electricity should be practiced by all members’. In the event that manual operation will not work, overhead bay doors should be left open.

In the event stations lose electrical power the Shift Commander will be notified to determine how communications will be conducted during power outage.

Secure outdoor objects around facilities that could blow away and cause damage or injury.

In severe weather situations citizens may come to the nearest station for shelter. Although not encouraged or publicized, an appropriate area should be designated to keep them safe and out of our operations.

- Station 1: Lower level hallway or fitness room
- Station 2: Decon. Room
- Station 3: Public bathroom in hallway
- Station 4: Decon. Room
- Station 5: Lower elevator lobby
- Station 11: Basement

8 APPARATUS / EQUIPMENT PREPARATIONS

Fuel levels on apparatus and equipment should be checked, and if necessary, topped off well in advance of storms when possible.

Life vest should be placed in crew areas for immediate donning on calls.

9 RESPONSE ROUTES / ACCESSABILITY

Normal response routes may become inaccessible due to downed electrical power lines, stranded cars or damaged streets. Department members should identify blocked or inaccessible routes and transmit this information to Dispatch and other companies. Alternate routes should be considered and identified as soon as possible.

Apparatus such as utilities may need to be relocated in order to handle minor emergency calls. Areas that may become impassable in high water may need apparatus re-located to provide quicker access.
The City's snow and ice control plan, which can be found at: http://lawrenceks.org/snow

10 VEHICLE OPERATIONS

Reduce speed for weather conditions to ensure safe driving operations.
Turn on driving lights.
If visibility is reduced (300 ft.), PULL OFF THE ROADWAY. DO NOT stop in the roadway, reduce lighting to a minimum.

11 HAZARD SAFETY MEASURES

Department members should utilize fire line tape to establish a restricted perimeter around “an immediate life threat” area prior to terminating the incident.

Arcing electrical power lines will investigate to determine if the line is an “immediate life threat”.
If there is no “immediate life threat”, the line is arcing, not down; the company should clear for the next assignment. Companies will not stand-by on arcing lines.

Department members should/will utilize fire line tape to establish a restricted perimeter around any “immediate life threat” area.

Electrical service entrances that are pulled away from houses should have the main breaker turned off. The electrical power company is not responsible for electrical power after it enters the electrical masthead to the house. The homeowner must contact an electrical contractor to repair.

12 SEVERE WEATHER OPERATIONS

SEVERE THUNDERSTORMS

A “SEVERE THUNDERSTORM WATCH” indicates that conditions are favorable for the development of thunderstorms that will contain hail greater than or equal to 3/4” in diameter or convective wind gusts greater than or equal to 58 MPH. Severe thunderstorms are also capable of producing a tornado.

Monitor radio/television/internet or National Weather Service for updates.

A “SEVERE THUNDERSTORM WARNING” indicates that a severe thunderstorm has been spotted by a valid storm spotter or there is strong evidence from radar data that a severe thunderstorm is occurring. Severe Thunderstorm Warnings indicate high winds, hail, lightning and heavy rain are imminent. Typically the Communications Center will be overwhelmed with calls for electrical power lines down or arcing, tree fires, transformers arcing and lightning strikes that need to be handled. When a severe thunderstorm warning is issued:

- Terminate routine outdoor activities.
- Monitor radio, television, internet or the National Weather Service continuously.
- Monitor sky conditions continuously.

TORNADOES
A “TORNADO WATCH” indicates that conditions are favorable for the development of tornado producing storms.

A “TORNADO WARNING” indicates that a tornado has been spotted by a valid storm spotter or there is strong evidence from radar data that a tornado is occurring (a funnel cloud is a tornado that has not reached the ground yet). **When a tornado warning has been issued:**

Members in the path of the tornado should take cover in pre-designated locations. If a tornado is observed from quarters and it appears imminent that it will hit, department members should mount the apparatus and move away, provided it is safe to do so. If time does not permit escape or civilians are seeking shelter in the station, department members should seek shelter in a predetermined area within the station.

Companies operating in the field must make members safety the highest immediate priority. When a tornado or funnel cloud is observed in the field, companies should move away from it at right angles to its direction of travel, if possible. If proximity to the tornado prevents escape, the apparatus should be abandoned and member’s should seek shelter in a sturdy building, ditch, or culvert and keep together. If apparatus is being abandoned, the Communications Center and the Shift Commander must be notified of the abandonment and location of the crew and apparatus as soon as practical.

When alarms are received during a tornado warning, the Shift Commander and Company Officers must consider the risk to member’s as compared to the risk of not sending members on alarms. Response to low risk calls should be delayed until the conditions have improved. The Communications Center must be advised of any delays or desires to hold calls.

**FLASH FLOODS**

“Flash Flood Watch” indicates that conditions are favorable for the flooding of low-lying areas and streets. Personnel should be prepared for flooding with little or no warning in the event of any precipitation nearby.

In flash flooding situations, rescue boats and additional water rescue equipment should be readied for immediate deployment. The boat trailer should be hooked up and ready to go at all times.

“Flash Flood Warning” indicates the imminent danger of flooding of low-lying areas and streets. High water can cause cars to be stranded with occupants still inside. The threat of the car or its occupants being swept away is great and should be monitored.

Fire apparatus, due to its size and clearance, may be able to access areas that other vehicles are not able to. The speed, force and depth of the water should not be underestimated and fire apparatus are not immune to moving due to these forces. Company Officers must take a conscious decision to enter flooded areas with extreme caution and an incident action plan must be formulated. Once apparatus is committed, egress may be limited or floodwaters may affect the apparatus operation. It is important to remember that you cannot know or guarantee what type of road conditions exist below the surface of the water.
Prior to entering flooded areas, members will be in life vests with a minimum of one (1) rescuer downstream with a throw bag.

Be familiar with the flood hazards within your Demand Zones forcing alternate routing during response. Company Officers will contact Dispatch and report any streets that are flooded and should be barricaded. Dispatch should contact the City/County Street Department to barricade the affected area to protect the public.

LIGHTNING

Company Officers must address the safety of crew members. Patient treatment should be accomplished in the safety of nearby buildings or inside Medic Units if possible.

Members not actively involved in emergency operations should remain inside apparatus or structures during local lightning. In addition, members should adhere to the following safety rules:

- When there is no shelter, avoid the highest object in the area. If only isolated trees are nearby, the best protection is to crouch in the open, keeping twice as far away from isolated trees as the trees are high.
- Aerial, ground ladders, and other elevated (including rooftop) operations should be halted during lightning conditions.
- Avoid hilltops, open spaces, wire fences, metal clothes lines, exposed sheds, and any electrically conductive, elevated objects.
- Avoid carrying or using long or metallic tools.
- Apparatus operators should seek shelter in a fully enclosed cab. If it is imperative to remain at the pump panel, do not lean against the apparatus and minimize physical contact with the apparatus.

HAIL

Hail can reach the size of a grapefruit and cause severe property damage and personal injury. Companies will use protective gear to prevent or reduce injury.

Remove any injured person(s) to a safe area.

Utilize buildings and department apparatus for cover.

ICE STORM

An ice storm is an occasion when damaging accumulations of ice are expected during freezing rain situations. Significant ice accumulations are usually accumulations of ¼” or greater. Ice accumulations make walking and driving extremely dangerous. Significant accumulations of ice can cause tree limbs and trees to fall causing utility lines causing utility lines to fail resulting in loss of power and communications.

SEVERE WEATHER DISPATCH OPERATIONS

The Shift Commander determines the resource deployment level and may assign an officer to
assist at the Douglas County Emergency Communications Center (DCECC). The officer will assist the Fire Medical Dispatcher handle and prioritize emergency calls during severe weather. The officer shall report to the DCECC and assume the role as the “Communications Coordinator”. The assignment of Communications Coordinator should be considered anytime that the storm history has caused damage to other areas.

When assigned to the DCECC, the Communications Coordinator should:

- Report to the Communications Supervisor and indicate the role they will be filling.
- Set up at the Fire Medical dispatch console, obtain a console headset and assist the Fire Medical Dispatcher with alarm assignments.
- Obtain the Fire Medical Department’s resource book and review contents for use as the storm approaches.
- Update the Shift Commander if the number of calls holding exceeds 10 and give updates as holding calls increase by increments of 10.

The Communications Coordinator and/or Shift Commander will determine when modified communications will be initiated. Upon activation of modified communications the “All Station” tone shall be sent with the following announcement:

“Dispatch is operating under modified communications due to severe weather conditions. Chief/Captain Smith is Communications Coordinator.”

The CAD system should be utilized as fully as possible to dispatch companies. Responses for medical calls should be dispatched as recommended by CAD when resources are available. When they are not fully available, adjust the call and advise the unit(s) assigned that additional assistance must be requested.

Utilize CAD to preview low priority calls and dispatch high priority calls without delay.

Utilities/administrative staff members will be assigned to respond with the Engines and/or Quints to satisfy staffing requirements.

Utilities/administrative staff members will be assigned to non-critical incidents (i.e. wires down, electrical hazards, etc.).

The Shift Commander will notify the Chief and Executive Staff when severe weather procedures are implemented.

Request an additional dispatcher to assist in managing resource deployment during major sustained storms.

Lightning strikes with visible smoke in the building should be dispatched as structure fires. Any other lightning strike should be dispatched as a special call assignment for Engine/Quint/Truck Company to investigate.
Lawrence Memorial Hospital will be notified transfers from their facility will be held and CSI cases will be on hold. As soon as the storm has passed and conditions stabilized, follow-up on transfers on hold and investigations should be conducted so that they may be completed.

Arcing lines, lines down and special calls related to wires and electrical problems should be assigned to utility units. These calls should be held and assigned only to these units when possible. When the storm has passed, normal resources may be deployed to clear all holding calls as necessary.

When a Communications Coordinator is in place, companies will not modify dispatch assignments unless approved through the Communications Center or the Shift Commander. This shall not preclude Incident Commanders asking for additional resources for their incident.

Dispatch will keep a list of all reported electrical responses that require a utility company follow-up. The list will identify a specific area and the type of problem:

- **Life Safety Priority**: A person(s) is now endangered and is trapped and cannot move until the electrical power company arrives.
- **High Priority**: An electrical line is down where a person(s) can touch it and a responsible party is monitoring the situation to keep the public away.
- **Normal Priority**: All calls that do not fit into the above categories or that involve non-electrical utilities.

### SEVERE WEATHER DEPLOYMENT

The Shift Commander will determine a Severe Weather Deployment based information about the storm.

As deployment levels increase, City maintenance personnel may be placed on stand-by or called in to duty.