

# **Operation Heat Wave**



## ***An Operational Guideline For Excessive Heat Emergencies***

Updated June 2011

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## **Statement of Purpose**

Weather patterns in the Great Lakes Region frequently result in extended periods of extremely high temperatures during the summer months.

Health experts agree that the combination of high temperatures, high humidity and poor air quality constitute a threat, especially to certain groups of people: children, the elderly and those with respiratory or other health problems.

Heat-related illnesses range from minor problems, such as heat stress and heat cramps, to serious illnesses such as heat exhaustion and heat stroke. Heat exhaustion often occurs after several days of high temperatures during which the patient loses water and salt through perspiration. Symptoms include dizziness, weakness, fatigue and nausea.

Heat stroke, the most dangerous heat-related illness, can be fatal. It occurs when body temperature rises above 105 degrees. The patient initially feels lethargic, then often becomes confused and eventually loses consciousness.

In an effort to increase public awareness to the threat Extreme Heat Emergencies (EHE) pose to our communities, Kane County has developed a framework by which an EHE incident can be effectively mitigated prior to the incident developing into a county-wide disaster with the loss of life.

## **Situations and Assumptions**

### **A. Situation**

There exists the possibility that given Kane County's climatic weather patterns during the summer months, temperatures may rise to over 100° F with a temperature heat index in excess on 130° F for one or more successive days.

There is also the possibility that during the above situation, power outages could occur in one or more locations through out the county, thereby exacerbating the situation and increasing the threat.

The occurrence of either or both of the above conditions could result in extreme physical stress being placed on certain individuals and populations within the community, primarily the very young, the elderly and those individuals with medical problems.

In such an event, "**OPERATION HEATWAVE**" will be implemented.

### **B. Assumptions**

As a member of the Multi-County Severe Weather Warning System it is the responsibility of the Office of Emergency Management to monitor weather conditions as they develop identifying any severe weather events that may threaten our communities.

It is assumed that electrical power will be available for OEM monitoring functions at the Emergency Operations Center (EOC) located at 719 S. Batavia Ave., Bldg C in Geneva IL.

A further assumption is made that if commercial power is lost at the EOC, its backup generator will be fully functional, the EOC would become the primary base of emergency operations during an EHE event.

## **National Weather Service Excessive Heat Product Definitions<sup>1</sup>**

### **Excessive Heat Outlook**

Using a combination of temperature and humidity over a certain number of days the Excessive Heat Outlook is designed to provide an indication of areas where people and animals may need to take precautions against the heat during the months of May to November.

### **Heat Advisory**

Issued by the National Weather Service within 12 hours of the onset of a heat index of at least 105°F, but less than 115°F for less than 3 hours per day, or nighttime lows above 80°F for 2 consecutive days.

### **Excessive Heat Warning**

Issued by the National Weather Service within 12 hours of the onset of a heat index of at least 105°F for more than 3 hours per day for 2 consecutive days, or heat index more than 115°F for any period of time.

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<sup>1</sup> <http://www.weather.gov/glossary/>

## **Concept of Operations**

Kane County has developed a three phase approach to managing Extreme Heat Emergencies based on the National Weather Service Excessive Heat products. The triggers for each of these phases are outlined below:

### ***PHASE 1***

Should the temperature heat index rise to over 94° F for three consecutive hours or more and the low temperature for the day does not drop below 75° at night the Extreme Heat Emergency (EHE) – “Phase 1” protocols will be initiated indicating conditions are favorable that an EHE may occur.

### ***PHASE 2***

Should the temperature heat index rise to over 105° F and the low temperature for the day does not drop below 75° at night the Extreme Heat Emergency (EHE) – “Phase 2” protocols will be initiated indicating a significant threat to the public health.

### ***PHASE 3***

In the event the temperature heat index rises to over 114° F and the low temperature for the day does not drop below 75° at night the Extreme Heat Emergency (EHE) – “Phase 3” protocols will be initiated indicating that an Extreme Heat Emergency event poses an immediate threat to life and is occurring or is imminent.

Should an EHE Phase 3 be initiated close coordination with area hospitals will be necessary to identify the affect the event is having on Kane County’s population. The establishment of municipal cooling centers or shelter and the need to relocate populations from extended care facilities may be necessary.

In the event the EHE continues for an extended period of time a State of Emergency may need to be declared by the County Board Chairman activating the County Emergency Operations Plan.

### **Extreme Heat Emergency “Phase 1” Checklist**

1. \_\_\_\_\_ If conditions exist that meet the criteria for the initiation of EHE Phase 1 protocols the Office of Emergency Management will notify the Health Department Emergency Response Coordinator via email or telephone of the activation of Phase 1 of this plan.
2. \_\_\_\_\_ The OEM operational staff will notify the County Board Chairman, all County department heads, and Animal Control via email that conditions are favorable to produce an EHE.
3. \_\_\_\_\_ All OEM personnel will be placed on STANDBY ALERT
4. \_\_\_\_\_ OEM operations personnel will fax notice to Community Contacts (847-697-1698), Kane County Senior Services (630-897-6901), and the Greater Elgin Senior Services Association (847-741-2163) of the increasing heat threat.
5. \_\_\_\_\_ The EHE Phase 1 information will be broadcast county-wide via EMnet.
6. \_\_\_\_\_ OEM Personnel will review EHE Phase 1 statements as may be received via National Weather Service and/or the Multi-County Severe Weather System notifications.
7. \_\_\_\_\_ EHE Phase 1 message will be released by the PIO to the media outlining personal protective actions the public may take to protect themselves from the increased heat conditions.

## **Extreme Heat Emergency “Phase 2” Checklist**

1. \_\_\_\_\_ If conditions exist that meet the criteria for the initiation of EHE Phase 2 protocols the Office of Emergency Management will notify the Health Department Emergency Response Coordinator via email or telephone of the activation of Phase 2 of this plan.
2. \_\_\_\_\_ OEM will notify the County Board Chairman and the County Department Heads via email that the EHE Phase 2 criteria have been met.
3. \_\_\_\_\_ OEM, Animal Control and the Health Dept. will develop joint messages describing EHE mitigation efforts and release them to the public via the media.
4. \_\_\_\_\_ Health Care and extended care facilities will be notified of the EHE Phase 2 by the Health Department.
5. \_\_\_\_\_ Municipalities and Elected officials will be notified of the EHE Phase 2 via EMnet, email or fax.
6. \_\_\_\_\_ If necessary encourage the municipalities to establish cooling centers.
7. \_\_\_\_\_ Assess OEM & Medical Reserve Corp. volunteer availability.
8. \_\_\_\_\_ In the event of wide-spread power outages activate the Power Outage protocols.

## **Extreme Heat Emergency “Phase 3” Disaster Checklist - NO IMMEDIATE POWER OUTAGE**

1. \_\_\_\_\_ If conditions exist that meet the criteria for the initiation of EHE Phase 3 protocols the Office of Emergency Management will notify the Health Department Emergency Response Coordinator via email or telephone of the activation of Phase 3 of this plan.
1. \_\_\_\_\_ The OEM, Public Health and Animal Control will develop joint messages pertaining to the Phase 3 status and release to the media.
2. \_\_\_\_\_ Information pertaining to the EHE Phase 3 will be distributed by the EOC to municipal, elected, and healthcare officials via EMnet, email or fax
3. \_\_\_\_\_ The EOC will be placed on a level 2 activation and staff will notify the IEMA regional office of the Phase 3 status and EOC activation.
4. \_\_\_\_\_ The OEM will contact the American Red Cross as well as the Salvation Army to advise that EHE Phase 3 protocols have been initiated placing the agencies on standby.
5. \_\_\_\_\_ OEM Personnel will continually monitor the weather forecasts through weather radar imaging, National Weather Service and Multi-County Severe Weather System to predicted length of the EHE.
6. \_\_\_\_\_ Municipalities will be encouraged to identified and established Cooling Centers as needed.
7. \_\_\_\_\_ The OEM will check on the Special Needs registrants.
8. \_\_\_\_\_ OEM will monitor the communities for wide-spread power outages.
9. \_\_\_\_\_ The OEM will develop and maintain a situational awareness of the incident keeping the County Board chairman informed.
10. \_\_\_\_\_ The OEM will update and distribute the situation reports as needed.
11. \_\_\_\_\_ Public awareness advisories will be broadcast at regular intervals with this information sent via EMnet, email or fax to all ESDA’s/EMA’s, municipalities, Kane County departments and the media. This information will include information on how to care for ones self during an EHE event, what to do if the power goes out and emergency numbers (9-1-1, Sheriff’s Dept., Kane County OEM, Health Dept.) if assistance is necessary. Fliers containing this information can also be given to the Meals on Wheels/Salvation army for distribution to seniors.

12. \_\_\_\_\_ OEM personnel will have electric generators ready to be activated and a list of resources available for use as may be necessary.
13. \_\_\_\_\_ OEM personnel will respond to requests for assistance if available to do so and if the request is within the OEM's scope of operation. If not, alternative avenues of assistance will be sought, including mutual aid assistance. Kane County Office of Emergency Management **will not** provide transportation to cooling centers.
14. \_\_\_\_\_ The operations staff will log a record of all EHE related activities and times executed in the DMIS crisis management system.
15. \_\_\_\_\_ Has the situation escalated? If so activate the County's Emergency Response Plan.

**Extreme Heat Emergency “Phase 3” Disaster Checklist - WITH POWER OUTAGE**

- \_\_\_\_\_ 1. All of the Extreme Heat Emergency “Phase 3” Disaster Checklist items will be completed.
- \_\_\_\_\_ 2. In the event of a wide-area electrical power outage during periods of EHE, the OEM Director or his/her designee will contact Commonwealth Edison officials to determine the area involved, the number of customers affected and the estimated duration of the outage.
- \_\_\_\_\_ 3. If there are any hospitals or extended care facilities in the affected area the Health Dept will be notified of the situation.
- \_\_\_\_\_ 4. In the event the facility does not have backup electrical power the OEM and Health Dept will help facilitate an evacuation per facility protocol.
- \_\_\_\_\_ 5. The OEM will ascertain if any of the Special Needs registrants are in the affected area.
- \_\_\_\_\_ 6. In the event a Special Needs registrant needs to be relocated arrangement will be made with the appropriate facility.
- \_\_\_\_\_ 7. The OEM will ensure critical County facilities have backup electrical power.

### **Extreme Heat Emergency “Cooling Center” Checklist**

- \_\_\_\_\_ 1. In the event an EHE necessitates the need for local cooling centers municipalities will be encouraged to open public building as cooling centers.
- \_\_\_\_\_ 2. In the event a dedicated mass cooling center is required the OEM will identify a facility from their current shelter listings, close to the stricken area for a mass cooling center.
- \_\_\_\_\_ 3. The OEM, MRC and the American Red Cross will be activated for logistical support.
- \_\_\_\_\_ 4. News media and local elected officials will be notified of the mass cooling centers location.
- \_\_\_\_\_ 5. The cooling center will then be opened under the provisions of the County Mass Care Annex in the Emergency Operations Plan.

## Post Extreme Heat Emergency Disaster Checklist

Immediately following the **HEATWAVE** disaster period the following actions will be taken:

1. \_\_\_\_\_ OEM personnel will assess the decreasing components of the HEATWAVE disaster (break in temperature, restoration of power, etc.) and advise the Director or his/her designee.
2. \_\_\_\_\_ The County Board Chair or the OEM Director or his/her designee will make a decision to **CEASE ALL HEATWAVE RESPONSE OPERATIONS** upon assessment of current conditions.
3. \_\_\_\_\_ The Director or his/her designee will contact the American Red Cross and the Salvation Army of the decision to **CEASE HEATWAVE OPERATIONS** and **DE-ACTIVATE** any cooling center(s). OEM Personnel will assist the American Red Cross with closing of the cooling center(s) and inform the facilities owner.
4. \_\_\_\_\_ OEM personnel will broadcast **DE-ACTIVATE OF HEATWAVE OPERATIONS** via the EARS system, EMnet and Fax to all county ESDA's/EMA's, municipalities and media.
5. \_\_\_\_\_ The OEM Director or his/her designee will inform the County Board Chairman of the de-activation of operations and implementation of the damage assessment plan.
6. \_\_\_\_\_ OEM personnel will advise the IEMA regional office of de-activation of operations and implementation of damage assessment plan.
7. \_\_\_\_\_ OEM personnel will **ACTIVATE DAMAGE ASSESSMENT OPERATIONS** per the Damage Assessment annex in the County EOP and advise the IEMA regional office.
8. \_\_\_\_\_ All logged activities pre, during and post **HEATWAVE** disaster are to be printed and forwarded to the Director.

All activities on the **Post HEATWAVE Disaster Checklist** are to be checked off as performed.

## **ANNEX A - Emergency Telephone Numbers**

### **Hospitals**

Delnor Community Hospital	(630) 208-3000
Elgin Mental Health Center	(847) 742-1040
Provena-Mercy Center Hospital	(630) 859-2222
Provena - St. Joseph Hospital	(847) 697-3200
Rush-Copley Memorial Hospital	(630) 978-6200
Saint Alexius Medical Center	(847) 843-2000
Sherman Hospital	(847) 742-9800

**IEMA Region 3** (815) 357-8963

American Red Cross (312) 433-7161

Salvation Army (800) 564-9004

Community Contact (630) 232-7600

Elgin Senior Center (847) 741-0404

Senior Services Assoc. of Kane County (630) 897-4184

National Weather Service - Romeoville (815) 834-0666

Commonwealth Edison (800) 334-7661  
(See Director or Deputy Director for other numbers)

Geneva Power & Electric (630) 232-1503  
(See Director or Deputy Director for other numbers)

**ANNEX B - Heat Index Conversion Table**

TEMPERATURE DEGREES FAHRENHEIT	HEAT INDEX TEMPERATURE																				
115	103	107	111	115	120	127	135	143	151												
110	99	102	105	108	112	117	123	130	137	143	150										
105	95	97	100	102	105	109	113	118	123	129	135	142	149								
100	91	93	95	97	99	101	104	107	110	115	120	126	132	138	144						
95	87	88	90	91	93	94	96	98	100	101	104	107	110	114	119	124	130	136			
90	83	84	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113	117	122		
85	78	79	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	99	102	105	108
80	73	74	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86	87	88	89	91
75	69	60	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80
70	64	64	65	65	66	66	67	67	68	68	69	69	70	70	70	70	71	71	71	71	72
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	RELATIVE HUMIDITY (Percent)																				