

Quad City Metro Area Outdoor Warning Sirens

Guidance for Testing and Activation

Purpose

The purpose of this document is to establish common guidelines for activation of outdoor warning sirens throughout the Quad City metro area.

The outdoor warning sirens represent only one part of a broader public emergency notification system. Other components might include: NOAA Weather Radio All-hazards, law enforcement, text notification networks, and the media. Sirens are used to alert citizens who are outdoors of an imminent hazard and prompt them to go indoors and seek further information.

This document is not intended to relieve, replace, or supersede any authority or responsibility local jurisdictions might have to protect the citizens of their community.

Background

Confusion hinders public response. Using common guidelines for the outdoor warning sirens throughout the various jurisdictions of the Quad Cities will minimize confusion in emergency situations. Establishing common guidelines will also enable communities to partner in an area-wide public education campaign regarding sirens and the overall public emergency notification system.

These guidelines are based on communication technology and systems available in the Quad City metro area, and also on the current science of severe weather warnings.

Siren Activation for Imminent Threats

Upon hearing outdoor warning sirens it is important that all persons immediately refer to local broadcast media (radio, TV, etc.) for additional information!

When activated, the tone should be sounded for 3-5 minutes, re-sounding for the duration of the threat (every 10-15 minutes is recommended). Repeated sounding of sirens has directly resulted in saved lives in numerous cases, including local examples such as Granville/Utica (2004) and Iowa City (2006). In both of these cases, the initial siren tone was not heard, but later tones alerted people to the continuing threat.

If sirens have more than one tone, local officials should pre-determine the tone that is most discernible and use that tone for all alerts.

Severe Weather

National Weather Service warnings define the area threatened by the storm and include information about the history and/or potential of the specific storm. In addition, trained spotters provide real-time reports of an imminent threat approaching or occurring in the community. When a warning includes the specific hazards defined below or when trained spotters report any of these hazards, sirens should be activated for all jurisdictions in the threatened area.

Tornadoes – Activation recommended for:

- Tornado Warning issued by the National Weather Service and/or
- Tornado or funnel cloud reported by a trained spotter

Severe Thunderstorms – Activation recommended for:

Severe Thunderstorm Warning issued by the National Weather Service or a report from a trained spotter that includes:

- wind 70 mph* or greater
- whole trees downed by wind (implies 70+ mph wind)
- and/or
- golf ball sized hail** or larger (1.75 inch diameter or greater)

* Most fatalities during tornadoes or severe thunderstorms occur due to falling trees or large branches. 70 mph is the typical threshold at which large branches and small trees break. (Additional background for this threshold is available in the engineering document for the Enhanced Fujita damage scale: www.spc.ncep.noaa.gov/efscale)

** Hail begins to break windows when it reaches or exceeds golf ball size.

Additional considerations:

Although other weather factors pose a risk, community-wide outdoor warning sirens should NOT be sounded for lightning or flash floods. By its nature, lightning is “self-alerting” and citizens should go indoors when thunder is heard. Also, because of the frequency of lightning, sounding sirens could desensitize the public to the sirens. Although flash floods present a threat, that threat is localized and typically in a known area. In addition, Flash Flood Warnings are often issued more than one hour before the flooding occurs, allowing local officials time for mitigation efforts, and eliminating the usefulness of community-wide sirens in this situation.

Local Life-threatening Events

Non-weather emergencies (hazmat incident, terrorism, nuclear emergency, etc.) that pose a threat to those outdoors and require action to protect life, should be alerted via the outdoor warning sirens by local officials based on existing agreements or local discretion depending on the emergency. If outdoor warning sirens are activated, the life-threatening conditions should also be relayed to Quad Cities NWS for broadcast on NOAA Weather Radio All-hazards.

All Clear

There will be no “all clear” signal from outdoor warning sirens. Citizens are expected to be indoors and should monitor local media for additional information.

Testing

Outdoor warning sirens will be tested the first Tuesday of each month at 10:00 a.m.***

If a severe weather watch or warning is in effect for the Quad City metro area prior to 10 a.m. on a scheduled test day, the sirens should **not** be tested that day. Outdoor warning siren tests will resume on the next scheduled monthly date.

***Illinois state law mandates siren testing on the first Tuesday. Iowa does not have a law regulating siren testing.

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Public Safety Answering Point (PSAP) Quick Reference Guide for Activation and Testing

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Severe Weather

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