

Purpose

The purpose of this document is to establish guidelines for activation of the outdoor public notification system. The system consists primarily of warning sirens. The outdoor public notification system (warning siren system) is under the control of the Linn County Emergency Management Agency.

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, Alert Iowa and the media. Sirens are used to promote situational awareness by alerting citizens who are outdoors of conditions within or approaching the community that pose a 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

Siren Activation for Imminent Threats

Outdoor warning sirens are activated to promote situational awareness by citizens of a condition in or approaching the community that is a hazard. 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).

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 under the control of Linn County Emergency Management should be activated for all areas in the threatened area. Linn County Emergency Management will provide consultation to other jurisdictions that control of their own sirens regarding current or potential conditions to assist the jurisdiction in determining the appropriateness of siren activation.

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 with a report from a trained spotter that includes:
- Confirmed winds over 70 mph* or greater, and/or
- 1.75 inch (golf ball sized hail)** or larger

** 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 [The Enhanced Fujita Scale \(EF Scale\) \(weather.gov\)](#)*

*** 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 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 for broadcast on NOAA Weather Radio All-hazards.

Full and partial Activation

The outdoor warning siren system is divided into four quadrants. The NW quadrant covers Walker, Center Point, Alburnett and Coggon. The NE quadrant covers Prairieburg and Central City. The SE quadrant covers Springville, Bertram, Mt. Vernon and Lisbon. The SW quadrant covers Palo, Cedar Rapids, Fairfax, Ely, Hiawatha, Robins, Marion and Walford. The siren system can be partially activated by quadrants as well as a full siren activation. (See Attachment 1 for Map of Quadrants).

It is the policy of the Linn County Emergency Management Commission to allow partial activation of the outdoor warning sirens in such a manner and to the extent allowed by current technology in order to provide effective outdoor warning to citizens.

The determination of partial versus full system activation should be based upon:

- **Timeliness** – the additional time required to initiate a partial activation. A full activation of the system should be used unless time allows for a partial activation of the siren system. Additional preparation time is needed to program a partial activation and should not be used unless time allows.
- The **size of the area to be warned** and number of sirens to be activated. A partial activation of the siren system is accomplished by issuing a series of individual siren activation commands. A partial activation of the system involving a large number of sirens can cause a delay in citizens receiving notification.
- The **limitations of delineating siren coverage**. Sirens in close proximity to each other, for example the Cedar Rapids metro area, should be sounded together to avoid citizen confusion.

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 Wednesday of each month at 8:45 a.m. If a severe weather watch or warning is in effect for Linn County prior to 8:45 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.

Linn County Area

Outdoor Public Notification Warning Sirens

Public Safety Answering Point (PSAP)

Quick Reference Guide for Activation and Testing

Sirens should be sounded for 3-5 minutes, resounding for the duration of the threat (every 10-15 minutes is recommended).

Severe Weather

Tornadoes

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Linn County Siren Quadrants

