Chapter 9

CIVIL DEFENSE AND EMERGENCY SERVICES

Art. I. In General, §§ 9-1—9-20
Art. II. Public Safety Radio Amplification System, §§ 9-21—9-33

ARTICLE I. IN GENERAL

Sec. 9-1. Purposes.

The purposes of this chapter are to:

(1) Reduce vulnerability of people and the community to damage, injury and loss of life and property resulting from natural or manmade catastrophes, riots or hostile military or paramilitary action;

(2) Prepare for prompt and efficient rescue, care and treatment of persons victimized or threatened by disaster;

(3) Provide a setting conducive to the rapid and orderly start of restoration and rehabilitation of persons and property affected by disasters;

(4) Clarify and strengthen the roles of the city council, the mayor, city manager and city agencies in prevention of, preparation for, response to and recovery from disasters;

(5) Authorize and provide for cooperation in disaster prevention, preparedness, response and recovery;

(6) Authorize and provide for coordination of activities relating to disaster prevention, preparedness, response and recovery by agencies and officers of this city, agencies of the private sector, and similar activities in which the federal government, the state and its political subdivisions may participate; and

(7) Provide a disaster management system embodying all aspects of pre-disaster preparedness and post-disaster response.

(Code 1967, § 9-1)

Sec. 9-2. Definitions.

For the purposes of this chapter, the following words and phrases shall have the meanings respectively ascribed to them by this section:

Director means the city manager, his designated alternate or such other person designated by the city council.

Disaster means the occurrence of imminent threat of widespread or severe damage, injury or loss of life or property or extreme peril to the safety of persons or property, resulting from any natural or man-made causes, including but not limited to fire, flood, earthquake, wind, storm, blight, drought, famine, infestation, air contamination, epidemic, explosion, riot or other acts of civil disobedience which endanger life or property or hostile military or paramilitary action.

Emergency means the existence of a disaster within the city limits requiring immediate action by the emergency forces of the city.

Emergency forces means all city governmental and private sector agencies; volunteers, facilities, equipment, trained manpower and other resources required to perform civil preparedness functions.

Emergency services means the organization, administration, trained manpower facilities, equipment, material, supplies, programs, emergency plans, ability to execute emergency plans, and all other measures necessary and incidental thereto relating to disaster prevention, preparedness, response and recovery by all governmental and private sector agencies to protect or save health, life or property.

Local emergency means the existence of a disaster within the city limits, and the situation is or is likely to be beyond the capability and resources of the city as determined by the mayor and which requires the combined efforts of other political subdivisions.

Regulations means the orders, rules and emergency procedures deemed essential for civil preparedness.

State of emergency means the duly proclaimed existence of a disaster within the state except a disaster resulting in a state of war emergency which is or is likely to be beyond the capabilities and resources of any single county, city or town and requires the combined efforts of the state and the political subdivision.

State of war emergency means the situation which exists immediately whenever this nation is attacked or upon receipt by this state of a warning from the federal government indicating that such an attack is imminent.
(Code 1967, § 9-2)

Charter reference—Authority of mayor during emergency, § 1.04.
State law reference—A.R.S. § 26-311.

Sec. 9-3. Emergency services organization.

The city manager is hereby authorized and directed to create an emergency services organization. The city manager shall be the director of emergency services.
(Code 1967, § 9-3)

Sec. 9-4. Director.

(a) The director of emergency services is responsible in nonemergency periods to act on behalf of the mayor and council to develop a readiness for emergency services and for coordinated operations in disaster situations.

During emergencies, the director shall act as the principal advisor or aide to the mayor on emergency operations. His major responsibility is to ensure coordination among emergency forces and with higher and adjacent governments, by ensuring that the EOC functions effectively. He shall assist the mayor in the execution of operations, plans and procedures required by the emergency.
(Code 1967, § 9-4(c)(1),(2))

Sec. 9-5. Disaster plan.

(a) The director of emergency services shall prepare a comprehensive disaster basic plan which shall be adopted and maintained by resolution of the council upon the recommendations of the director. In the preparation of this plan as it pertains to city organization, it is the intent that the services, equipment, facilities and personnel of all existing departments and agencies to be used to the fullest extent.

(b) The disaster plan shall be considered supplementary to this chapter and have the effect of law whenever emergencies, as defined in this chapter, have been proclaimed.
(Code 1967, § 9-4(c)(3),(4))

Sec. 9-6. Penalty.

Any person who violates any provisions of this chapter or who refuses or wilfully neglects to obey any lawful regulation issued as provided in this chapter shall be subject to the penalty provided in section 1-7 of this code.
(Code 1967, § 9-7)

Sec. 9-7. Enforcement of regulations.

The law-enforcing authority of the city shall enforce regulations issued pursuant to this chapter.
(Code 1967, § 9-6)

Secs. 9-8—9-20. Reserved.

ARTICLE II. PUBLIC SAFETY RADIO AMPLIFICATION SYSTEM

Sec. 9-21. Purpose.

The purpose of this article is to provide minimum standards to insure a reasonable degree of reliability for emergency services communications from within certain buildings and structures within the city to and from emergency communications centers. It is the responsibility of the emergency service provider to get the signal to and from the building site.
(Ord. No. 2001.25, 9-13-01)

Sec. 9-22. Applicability.

This article applies to new construction permits issued after October 13, 2001.
(Ord. No. 2001.25, 9-13-01; Ord. No. 2007.54, 8-16-07)

Sec. 9-23. Scope.

The provisions of this article shall apply to:

(1) New buildings greater than fifty thousand (50,000) square feet;

(2) Existing buildings over fifty thousand (50,000) square feet when modifications, alterations or repairs exceed fifty percent (50%) of the value of the existing building(s) and are made within any twelve (12) month period or the usable floor area is expanded or enlarged by more than fifty percent (50%); and

(3) All basements where the occupant load is greater than fifty (50), regardless of the occupancy, or sub-level parking structures over ten thousand (10,000) square feet.
(Ord. No. 2001.25, 9-13-01)

Sec. 9-24. Radio coverage.

(a) Except as otherwise provided in this article, no person shall erect, construct or modify any building or structure or any part thereof, or cause the same to be done which fails to support adequate radio coverage for firefighters and police officers. Inadequate radio coverage shall be deemed to render such buildings or structures or any parts thereof unsafe and subject to the provisions of Sections 8-108.1 and 8-108.1.2.

(b) The city's telecommunications unit with consideration of the appropriate police, fire and emergency medical department services shall determine the frequency range or ranges that must be supported.

(c) For the purpose of this section, adequate radio coverage shall constitute a successful communications test between the equipment in the building and the communications centers for all appropriate emergency service providers for the building.
(Ord. No. 2001.25, 9-13-01; Ord. No. 2007.54, 8-16-07)

Sec. 9-25. Inbound into the building.

(a) A minimum average in-building field strength of one micro-volts (-107dbm) for analog and five (5) micro-volts (-93dbm) for digital systems throughout eighty-five percent (85%) of the area of each floor of the building when transmitted from the city's police dispatch center and the appropriate emergency service dispatch centers which are providing fire and emergency medical protection services to the building.

(b) If the field strength outside the building where the receive antenna system for the in-building system is located is less than -107dbm for analog, or -93dbm for digital systems, then the minimum required in-building field strength shall equal the field strength being delivered to the receive antenna of the building.

(c) As used in this article, eighty-five percent (85%) coverage or reliability means the radio will transmit eighty-five percent (85%) of the time at the field strength and levels as defined in this article.
(Ord. No. 2001.25, 9-13-01)

Sec. 9-26. Outbound from the building.

A minimum average signal strength of one micro-volts (-107dbm) for analog and five (5) micro-volts (-93dbm) for digital systems as received by the city's police dispatch center and the appropriate emergency service dispatch centers which are providing fire and emergency medical protection services to the building.
(Ord. No. 2001.25, 9-13-01)

Sec. 9-27. FCC authorization.

If amplification is used in the system, all FCC authorizations must be obtained prior to use of the system. A copy of these authorizations shall be provided to the city's telecommunications unit supervisor.
(Ord. No. 2001.25, 9-13-01)

Sec. 9-28. Enhanced amplifications systems.

(a) Where buildings and structures are required to provide amenities to achieve adequate signal strength, they shall be equipped with any of the following to achieve the required adequate radio coverage; radiating cable systems(s), internal multiple antenna system(s) with a frequency range as established in § 9-24(b) with amplification system(s) as needed, voting receiver system(s) as needed, or any other city approved system(s).

(b) If any part of the installed system or systems contains an electrically powered component, the system shall be capable of operation of an independent battery or generator system for a period of at least eight (8) hours without external power input or maintenance. The battery system shall automatically charge in the presence of external power.

(c) Amplification equipment must have adequate environmental controls to meet the heating, ventilation, cooling and humidity requirements of the equipment that will be utilized to meet the requirements of this code. The area where the amplification equipment is located also

must be free of hazardous materials such as fuels, asbestos, etc. The location of the amplification equipment must be in an area that has twenty-four (24) hour, seven (7) day a week access for the city's telecommunications personnel. All communications equipment including amplification systems, cable and antenna systems shall be grounded with a single point ground system of five (5) ohms or less. The ground system must include an internal tie point within three (3) feet of the amplification equipment. System transient suppression for the telephone circuits, ac power, radio frequency (RF) cabling and grounding protection are required as needed.

(d) The following information shall be provided to the city telecommunications division by the builder:

(1) A blueprint showing the location of the amplification equipment and associated antenna systems which includes a view showing building access to the equipment; and

(2) Schematic drawings of the electrical, backup power, antenna system and any other associated equipment relative to the amplification equipment including panel locations and labeling.

(Ord. No. 2001.25, 9-13-01; Ord. No. 2007.54, 8-16-07)

Sec. 9-29. Testing procedures – method to conduct tests.

(a) Testing shall be performed by a city-approved RF engineer. The city will provide a list of qualified RF engineers. It is the responsibility of the building owner to contact the RF engineer and make arrangements for testing.

(b) Tests shall be made using frequencies close to the frequencies used by the police and appropriate emergency services. If testing is performed on the actual frequencies, then this testing must be coordinated within the city's telecommunications unit. All testing must be performed on frequencies authorized by the FCC. A valid FCC license will be required if testing is performed on frequencies different from the police, fire or emergency medical frequencies.

(c) Measurements shall be made using the following guidelines:

(1) With a service monitor using a unity gain antenna on a small ground plane;

(2) Measurements shall be made with the antenna held in a vertical position at three (3) to four (4) feet above the floor;

(3) Signal strength, both inbound and outbound as defined above, shall be measured on each and every floor above and below ground including stairwells, basements, penthouse facilities and parking areas of the structure. The structure shall be divided into fifty (50) foot grids and the measurements shall be taken at the center of each grid. In critical areas (police substations and fire command posts), the grids shall be subdivided into four (4) twenty-five (25) foot grids in place of each fifty (50) foot grid;

(4) A calibrated service monitor (with a factory calibration dated within twenty-four (24) months) may be used to do the test;

(5) The telecommunications unit representative for the city may also make simultaneous measurements to verify that the equipment is making accurate measurements. A variance of 3db between the instruments will be allowed; and

(6) If measurements in one location are varying, then average measurements shall be used.

(Ord. No. 2001.25, 9-13-01; Ord. No. 2007.54, 8-16-07)

Sec. 9-30. Initial tests and evaluation.

(a) Signal strength, both inbound and outbound as defined above, shall be measured on each and every floor above and below ground including stairwells, basements, penthouse facilities and parking areas of the structure. The structure shall be divided into fifty (50) foot grids and the measurements shall be taken at the center of each grid. In critical areas (police substations and fire command posts), the grids shall be subdivided into four (4) twenty-five (25) foot grids in place of each fifty (50) foot grid.

(b) All test results shall be provided to the city telecommunications division in the following format. An eleven (11) inch by seventeen (17) inch floor plan view for each building level showing the location and signal strength for every measurement taken. Signal strength readings will be projected in a twenty-five (25) foot radius around each measurement point and color shaded according to signal strength. Any areas not meeting minimum average in-building field strength as set forth in §§ 9-25 and 9-26 will be shaded red. Areas meeting or exceeding minimum strength will be shaded green.

(c) Initial testing shall be performed at no expense to the city or appropriate emergency services department.

(Ord. No. 2001.25, 9-13-01; Ord. No. 2007.54, 8-16-07)

Sec. 9-31. Building treatment.

(a) Where buildings and structures are required to provide amenities to achieve adequate signal strength, a city-approved RF engineer shall design a treatment system to resolve building penetration issues. The city will provide a list of qualified RF engineers to the building owner.

(b) It is the responsibility of the building owner to contact the RF engineer and make arrangements for treatment. A signal amplification system design and bill of materials, including implementation costs, shall be provided to the building owner, and the city, by the RF engineer.

(c) Building treatment shall be performed by a city-approved RF engineer and may be monitored by a city telecommunications staff member. System design and implementation shall be performed at no cost to the city or the appropriate emergency services department.

(Ord. No. 2007.54, 8-16-07)

Sec. 9-32. Annual tests of system performance.

Annual tests will be conducted by a city-approved RF engineer. The city will provide a list of qualified RF engineers to the building owners. If communications appear to have degraded or if the tests fail to demonstrate adequate system performance, the owner of the building or structure is required to remedy the problem and restore the system in a manner consistent with the original approval criteria. Failure to remedy any problems shall render the building and/or any appendages unsafe under Sections 8-108.1 and 108.1.2. Test results, as set forth in § 9-30, shall be provided to city telecommunications staff annually, on or before, the anniversary date of initial acceptance. The re-testing will be performed at no expense to the city or the appropriate emergency services departments as required in the original testing procedures.
(Ord. No. 2001.25, 9-13-01; Ord. No. 2007.54, 8-16-07)

Sec. 9-33. Compliance.

The required RF compliance shall be a condition and/or stipulation in any building permits issued for buildings referenced in § 9-23 and the testing referenced in § 9-32 shall be completed prior to final approvals issued under Section 8-107 for the occupancy of these buildings. Failure to comply with this article shall result in the withholding, or suspension, of a certificate of occupancy from the city.
(Ord. No. 2001.25, 9-13-01; Ord. No. 2007.54, 8-16-07)