

Explanatory Policy – NFPA 72 Applicable Requirements Acceptable to the AHJ

SUBJECT:	EFFECTIVE DATE:
NFPA 72 & Phoenix Code Requirements	July 19, 2019
REFERENCES:	REVIEW DATE:
The Phoenix Fire Code (2018 Edition)	July 2024
Section 907.2	
APPROVED:	
The Meet	
John Mertens, Fire Marshal	

Scope:

The 2016 edition of the NFPA 72 included many technical updates. This document provides guidance for all requirements for code compliance in the city of Phoenix jurisdiction. If the section is included in this document, it is expected and enforceable in the city of Phoenix in accordance with this policy. Among those updates were changes in Chapter 10, "Fundamentals," requiring supervising station operators and fire alarm system service providers to report to the authority having jurisdiction certain conditions of system impairment.

Requirements for inspection, testing, and service personnel qualifications were updated to better reflect the level of qualification needed for each type of activity.

Changes were made in Chapter 26, "Supervising Station Alarm Systems," to address alarm signal verification, alarm signal content, and restoration of signals. Those changes were made in part to help emergency responders better manage issues related to unwanted alarms. In addition, new definitions for unwanted alarms were added to more precisely identify the sources of those alarms. Changes were also made to update the communications methods addressed in Chapter 26. Among them were changes to the supervision interval requirements for communications paths and changes to the types of transmission means that can be used for the second channel of a DACT.

1.4 Retroactivity.

1.4.2 In those cases where it is determined by the authority having jurisdiction that the existing situation involves a distinct hazard to life or property, retroactive application of the provisions of this document shall be permitted.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.



3.2.2* Authority Having Jurisdiction (AHJ). An organization, [the Phoenix Fire Department Fire Prevention, PFD] office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

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3.3.218* Qualified. A competent and capable person or company that has met the requirements and training for a given field acceptable to the authority having jurisdiction.

Chapter 7 Documentation

7.2.3 All fire alarm drawings shall use symbols described in NFPA 170 or other symbols acceptable to the authority having jurisdiction.

7.4.4 Shop drawings shall include the following information:

- (1) Name of protected premises, owner, and occupant (where applicable)
- (2) Name of installer or contractor
- (3) Location of protected premises
- (4) Device legend and symbols in accordance with NFPA 170, or other symbols acceptable to the authority having jurisdiction
- (5) Date of issue and any revision dates

7.5.6.7 Electronic Record of Completion.

7.5.6.7.1 Where approved by the authority having jurisdiction, the record of completion shall be permitted to be filed electronically instead of on paper (this is acceptable to PFD).

7.5.8* Verification of Compliant Installation.

7.5.8.1 Where required by the authority having jurisdiction, compliance of the completed installation with the requirements of this Code shall be certified by a qualified and impartial third-party organization acceptable to the authority having jurisdiction.

7.7 Records, Record Retention, and Record Maintenance.

7.7.1.2* The records shall be available for examination and, if required, reported to the authority having jurisdiction. Archiving of records by any means shall be permitted if hard copies of the records can be provided promptly when requested. Electronic PDF's etc. are acceptable.

10.5.1 System Designer.

- 10.5.1.3 Personnel shall provide documentation of their qualification by one or more of the following:
 - (1) Registration, licensing, or certification by a state or local authority
 - (2) Certification by an organization acceptable to the authority having jurisdiction
 - (3) Manufacturer's certification for the specific type and brand of system provided



- **10.5.1.6** The system designer shall provide evidence of their qualifications and/or certifications when required by the authority having jurisdiction.
- **10.5.2.3** Personnel shall provide documentation of their qualification by one or more of the following:
 - (1) Registration, licensing, or certification by a state or local authority
 - (2) Certification by an organization acceptable to the authority having jurisdiction
 - (3) Manufacturer's certification for the specific type and brand of system provided
- **10.5.2.5** The system installer shall provide evidence of their qualifications and/or certifications when requested by the authority having jurisdiction.

10.5.3* Inspection, Testing, and Service Personnel.

- 10.5.3.1* Inspection Personnel. Inspections shall be performed by personnel who have developed competence through training and experience that are acceptable to the authority having jurisdiction or meet the requirement of 10.5.3.4.
- **10.5.3.2* Testing Personnel.** Testing personnel shall have knowledge and experience of the testing requirements contained in this Code, of the equipment being tested, and of the test methods. That knowledge and experience shall be acceptable to the authority having jurisdiction or meet the requirement of 10.5.3.4.
- **10.5.3.3 Service Personnel.** Service personnel shall have knowledge and experience of the maintenance and servicing requirements contained in this Code, of the equipment being serviced or maintained, and of the servicing or maintenance methods. That knowledge and experience shall be acceptable to the authority having jurisdiction or meet the requirement of 10.5.3.4.
- **10.5.3.4 Means of Qualification**. Qualified personnel shall include, but not be limited to, one or more of the following:
 - (1) *Personnel who are factory trained and certified for the specific type and brand of system being serviced
 - (2) *Personnel who are certified by a nationally recognized certification organization acceptable to the authority having jurisdiction (NICET, CSA, Specific system training)
 - (3) *Personnel, either individually or through their affiliation with an organization that is registered, licensed, or certified by a state or local authority to perform service on systems addressed within the scope of this Code (Union or Trade organizations)
 - (4) Personnel who are employed and qualified by an organization listed by a nationally recognized testing laboratory for the servicing of systems within the scope of this Code (UJL, FM, EST, etc.)
- **10.5.3.6 Evidence of Qualification.** Evidence of qualifications shall be provided to the authority having jurisdiction upon request.



- **10.5.4.4** Personnel shall provide documentation of their qualifications by one or more of the following:
 - (1) Registration, licensing, or certification by a state or local authority
 - (2) Meeting the requirements of NFPA 1031
 - (3) Assignment by the authority having jurisdiction to perform plan reviews and inspections 10.5.5
- **10.5.5.2** Evidence of qualifications and/or certification shall be provided when requested by the authority having jurisdiction. A license or qualification listing shall be current in accordance with the requirements of the issuing authority or organization.
- **10.6.9.3*** Supervising station alarm systems shall be arranged to delay transmission of primary power failure signals for 60 minutes to 180 minutes unless a delay is not permitted by the authority having jurisdiction. [Permitted by Phoenix Fire Department Fire Prevention].
- **10.14.10.7*** Unless otherwise permitted by the authority having jurisdiction (not permitted to permanently silence), trouble notification appliances at the protected premises of a supervising station fire alarm system arranged in accordance with Chapter 26, that have been silenced at the protected premises shall automatically reactuate every 24 hours or less until fault conditions are restored to normal.
- **10.17.3.2** All required annunciation means shall be located as required by the authority having jurisdiction to facilitate an efficient response to the situation.

10.19 Documentation and Notification.

10.19.2 The authority having jurisdiction shall be notified prior to installation or alteration of equipment or wiring (PFD permit required).

14.3 Inspection.

14.3.1* Unless otherwise permitted by 14.3.2, visual inspections shall be performed in accordance with the schedules in Table 14.3.1 or more often if required by the authority having jurisdiction. (PFD will allow on a case by case basis, with prior approval).

14.4 Testing.

- **14.4.4* Testing Frequency.** Unless otherwise permitted by other sections of this Code, testing shall be performed in accordance with the schedules in Table 14.4.3.2 or more often if required by the authority having jurisdiction.
- **14.4.4.1** Devices or equipment that are inaccessible for safety considerations (e.g., continuous process operations, energized electrical equipment, radiation, and excessive height) shall be permitted to be tested during scheduled shutdowns if approved by the authority having jurisdiction. Extended intervals



shall not exceed 18 months.

14.6 Records.

- **14.6.1* Permanent Records.** After successful completion of acceptance tests approved by the authority having jurisdiction, the requirements in 14.6.1.1 through 14.6.1.3 shall apply.
- **14.6.1.3** The system owner shall be responsible for maintaining these records for the life of the system for examination by any authority having jurisdiction. Paper or electronic media shall be permitted.
- **14.6.3.2** Upon request, a hard copy record shall be provided to the authority having jurisdiction.

17.3* Performance-Based Design.

- 17.3.1 Performance-based designs submitted to the authority having jurisdiction for review and approval shall include documentation, in an approved format, of each performance objective and applicable scenario, together with any calculations, modeling, or other technical substantiation used in establishing the proposed design's fire and life safety performance. (An Engineering interpretation or Appeal to the Fire Marshal is required).
- **17.3.2** The authority having jurisdiction shall determine whether such identified performance objectives are appropriate and have been met.
- **17.3.3** The authority having jurisdiction shall approve modifications to or variations from the approved design or design basis in advance. (A resubmittal of plan review may be required).
- **17.4.7** Where fire detectors are installed in concealed locations more than 10 ft above the finished floor or in arrangements where the detector's alarm or supervisory indicator is not visible to responding personnel, the detectors shall be provided with remote alarm or supervisory indication in a location acceptable to the authority having jurisdiction.
- **17.16.2.2.4 Other Sources.** An initiating device for supervising the pressure of sources other than those specified in 17.16.2.2.1 through 17.16.2.2.3 shall be provided as required by the authority having jurisdiction.

18.4 Audible Characteristics.

18.4.1.4.5 Where required by the authority having jurisdiction, documentation of the design sound pressure levels for the various coverage areas shall be submitted for review and approval.

18.4.2 Distinctive Evacuation Signal.

18.4.2.1* To meet the requirements of Section 10.10, the alarm audible signal pattern used to notify building occupants of the need to evacuate (leave the building) or relocate (from one area to another)



shall be the standard alarm evacuation signal consisting of a three-pulse temporal pattern. The pattern shall be in accordance with Figure 18.4.2.1 and shall consist of the following in this order:

- (1) "On" phase lasting 0.5 second ±10 percent
- (2) "Off" phase lasting 0.5 second ±10 percent for three successive "on" periods
- (3) "Off" phase lasting 1.5 seconds ±10 percent **Exception:** Where approved by the authority having jurisdiction, continued use of the existing consistent evacuation signaling scheme shall be permitted. (Will be changed on alarm panel replacement and should be consistent sound within a space).
- **18.4.3.2** Where approved by the authority having jurisdiction or other governing codes or standards, the requirements for audible signaling shall be permitted to be reduced or eliminated when visible signaling is provided in accordance with Section 18.5.
- **18.4.3.4** If approved by the authority having jurisdiction, audible alarm notification appliances installed in restrooms shall be permitted to use the audibility criteria for private mode appliances detailed in 18.4.4.1.
- **18.4.4.2*** Where approved by the authority having jurisdiction or other governing codes or standards, the requirements for audible signaling shall be permitted to be reduced or eliminated when visible signaling is provided in accordance with Section 18.5.

18.5.2 Area of Coverage.

- 18.5.2.3 Where required by the authority having jurisdiction, documentation of the effective intensity (cd) of the visible appliances for the area of coverage shall be submitted for review and approval.
- **18.9.2.1 Private Mode.** Unless otherwise permitted or required by other governing laws, codes, or standards, or by other parts of this Code or by the authority having jurisdiction, all textual and graphical visible notification appliances in the private mode shall be located in rooms that are accessible only to those persons directly concerned with the implementation and direction of emergency response in the areas protected by the system. (Public corridors, public mode).

21.3* Elevator Phase I Emergency Recall Operation.

- 21.3.3 Unless otherwise required by the authority having jurisdiction, only the elevator hoistway, elevator machine room, elevator control room, and elevator control space smoke detectors or other automatic fire detection as permitted by 21.3.9 shall be used to initiate elevator Phase I Emergency Recall Operation.
- 21.3.12 (Not allowed by PFD). Where approved by the authority having jurisdiction, the detectors used to initiate elevator recall shall be permitted to initiate a supervisory signal in lieu of an alarm signal.



21.10* Exit Marking Audible Notification Systems.

21.10.1 Where required by other governing laws, codes, standards, or the authority having jurisdiction, exit marking audible notification appliances shall be activated by the building fire alarm system.

23.3.3.2* Dedicated Function Fire Alarm Systems.

23.4.2.2* Where the power to a device is supplied over a separate circuit from the signaling line circuit or initiating device circuit, the operation of the power circuit shall meet the performance requirements of the initiating device circuit or signaling line circuit, unless different performance requirements are established in accordance with the evaluation in 23.4.3 and approved by the authority having jurisdiction. (Requires Appeal to the Fire Marshal or Engineering Interpretation).

23.8 System Requirements.

23.8.1.1* Presignal Feature.

23.8.1.1.1 Systems that have a presignal feature complying with 23.8.1.1 shall be permitted if approved by the authority having jurisdiction. (An Appeal to the Fire Marshal is required).

23.8.1.2 Positive Alarm Sequence.

- **23.8.1.2.1** Systems that have positive alarm features complying with 23.8.1.2 shall be permitted if approved by the authority having jurisdiction. (An Appeal to the Fire Marshal is required).
- **23.8.2.10** Remote resetting and silencing of a fire alarm control unit from other than the protected premises shall be permitted with the approval of the authority having jurisdiction. (Requires Appeal to the Fire Marshal or Engineering Interpretation).
- **23.8.4.7** If the authority having jurisdiction determines that the information being displayed or annunciated on a combination system is excessive and is causing confusion and delayed response to a fire emergency, the authority having jurisdiction shall be permitted to require that the display or annunciation of information for the fire alarm system be separate from, and have priority in accordance with, 23.8.4.6, over information for the non–fire alarm systems.

24.3.1 Intelligible Voice Messages.

- 24.3.3* Required Emergency Communications Systems. An emergency communications system shall be installed in occupancies where required by the authority having jurisdiction or by other applicable governing laws, codes, or standards.
- **24.4.1.2** If acceptable to the authority having jurisdiction, the system shall permit the application of an automatic evacuation signal to one or more signaling zones and, at the same time, shall permit manual



voice paging to the other signaling zones selectively or in any combination. (Acceptable to Phoenix Fire Department Fire Prevention).

24.5.4 Loudspeaker Circuits.

- 24.5.4.1* Loudspeaker circuits used for mass notification that are not fire alarm circuits shall be exempt from the monitoring requirements of this Code, provided that alternate methods of achieving comparable reliability are accepted by the authority having jurisdiction. (Requires Appeal to the Fire Marshal or Engineering Interpretation).
- **24.5.22.2 Interfaces to Emergency Control Functions.** The mass notification system shall be permitted to provide emergency control functions in accordance with Chapter 21 as required by the emergency response plan and as permitted by the authority having jurisdiction.
- **24.5.22.3.2** The in-building mass notification system shall not be activated or controlled by a wide-area mass notification system, unless the wide-area mass notification system also meets the design and performance requirements of this chapter or has been deemed to be acceptable by the risk analysis and the authority having jurisdiction.
- **24.8.13** Telephone circuits shall be selectable from the control location either individually or, if approved by the authority having jurisdiction, by floor or stairwell. Show clearly on plans and agree with the Fire Life Safety Report.
- **24.8.15** If telephone jacks are provided, two or more portable handsets, as determined by the authority having jurisdiction, shall be stored at each control center for use by emergency responders. Telephone jacks are required in high-rise buildings.

24.9 Two-Way Radio Communications Enhancement Systems.

24.9.1.2 Approval and Permit. Plans shall be submitted for approval prior to installation. At the conclusion of successful acceptance testing, a renewable permit shall be issued for the public safety radio enhancement system where required by the authority having jurisdiction [required by Phoenix Fire Department Fire Prevention].

26.2.1 Alarm Signal Disposition.

- **26.2.1.1** Alarm signals initiated by manual fire alarm boxes, automatic fire detectors, waterflow from the automatic sprinkler system, or actuation of other fire suppression system(s) or equipment shall be treated as fire alarm signals.
- **26.2.1.2*** Except as permitted by 26.2.2 and 29.7.9.2, all fire alarm signals received by a supervising station shall be immediately retransmitted to the communications center. (PFD Alarm Room).



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- **26.2.1.3** Fire alarm signals received at the supervising station by a zone or zones shall be retransmitted by zone to the communications center.
- **26.2.1.4** Fire alarm signals received at the supervising station that are identified as an individual point or points shall be retransmitted by point identifier to the communications center.

26.2.2* Alarm Signal Verification. (An Appeal to the Fire Marshal is required).

- **26.2.2.1** For applications other than those addressed under the scope of 29.7.9.2, supervising station personnel shall attempt to verify alarm signals prior to reporting them to the communication center where all the following conditions exist:
 - (1)*Alarm signal verification is required by the responsible fire department for a specific protected premises.
 - (2) Documentation of the requirement for alarm signal verification is provided by the responsible fire department to the supervising station and the protected premises.
 - (3) If the requirement for verification changes, the responsible fire department shall notify the supervising station and the protected premises.
 - (4)*The verification process does not take longer than 90 seconds from the time the alarm signal is received at the supervising station until the time that retransmission of the verified alarm signal is initiated.
 - (5) Verification of a true fire is received from anyone on premises or verification of an unwanted alarm signal is received only from a pre-assigned list of authorized personnel within the protected premises.
 - (6)*Verified alarm signals are immediately retransmitted to the communications center and include information that the signal was verified at the protected premises to be an emergency.
 - (7)*Alarm signals where verification is not conclusive are immediately retransmitted to the communications center.
 - (8)*Alarm signals that are verified as unwanted alarms shall be reported to the responsible fire department in a manner and at a frequency specified by the responsible fire department.

26.3.8 Disposition of Signals.

26.3.8.1 Alarm Signals.

- 26.3.8.1.1 The central station shall perform the following actions:
 - (1)*Retransmit the alarm to the communications center in accordance with 26.2.1.

place the system back in operating condition. Not prohibited in Phoenix.

- (2) Dispatch a runner or technician to the protected premises to arrive within 2 hours after receipt of a signal if equipment needs to be manually reset by the prime contractor.

 Except where prohibited by the authority having jurisdiction, the runner or technician shall be permitted to be recalled prior to arrival at the premises if a qualified representative of the subscriber at the premises can provide the necessary resetting of the equipment and is able to
- (3) Immediately notify the subscriber.



(4) Provide notice to the subscriber or authority having jurisdiction, or both, if required [required by Phoenix Fire Department Fire Prevention].

Exception: If the alarm signal results from a prearranged test, the actions specified by 26.3.8.1.1(1) and (3) shall not be required.

26.3.8.3* Supervisory Signals. Upon receipt of a supervisory signal that is not prearranged, the central station shall perform the following actions:

- (1)*Communicate immediately with the persons designated by the subscriber and notify the fire department, law enforcement agency, or both when required by the authority having jurisdiction
- (2) Dispatch a runner or maintenance person to arrive within 2 hours to investigate unless the supervisory signal is cleared in accordance with a scheduled procedure determined by 26.3.8.3(1)
- (3) Notify the authority having jurisdiction and the subscriber when sprinkler systems or other fire suppression systems or equipment have been wholly or partially out of service for 8 hours [Required by Phoenix Fire Department Fire Prevention].
- (4) When service has been restored, provide notice to the subscriber and the authority having jurisdiction of the nature of the signal, the time of occurrence, and the restoration of service when equipment has been out of service for 8 hours or more [Required by Phoenix Fire Department Fire Prevention].

26.3.8.4 Trouble Signals. Upon receipt of trouble signals or other signals pertaining solely to matters of equipment maintenance of the alarm systems, the central station shall perform the following actions:

- (1)*Communicate immediately with persons designated by the subscriber
- (2) Dispatch personnel to arrive within 4 hours to initiate maintenance, if necessary
- (3) When the interruption is more than 8 hours, provide notice to the subscriber and the fire department if so required by the authority having jurisdiction as to the nature of the interruption, the time of occurrence, and the restoration of service [Required by Phoenix Fire Department Fire Prevention].

26.3.8.5 Test Signals.

26.3.8.5.2 Test signals initiated by the subscriber, including those for the benefit of an authority having jurisdiction, shall be acknowledged by central station personnel whenever the subscriber or authority inquires [Required by Phoenix Fire Prevention].

26.4.6.6.3 Supervisory Signals. Upon receipt of sprinkler system and other supervisory signals, the proprietary supervising station operator shall initiate action to perform the following, if required:

- (1) Communicate immediately with the designated person(s) to ascertain the reason for the signal
- (2) Dispatch personnel to arrive within 2 hours to investigate, unless supervisory conditions are promptly restored
- (3) Notify the fire department if required by the authority having jurisdiction [Not required by Phoenix Fire Department Fire Prevention]



- (4) Notify the authority having jurisdiction when sprinkler systems are wholly or partially out of service for 8 hours or more [Required by Phoenix Fire Department Fire Prevention].
- (5)*Provide written notice to the authority having jurisdiction as to the nature of the signal, time of occurrence, and restoration of service when equipment has been out of service for 8 hours or more [Required by Phoenix Fire Department Fire Prevention].

26.4.6.6.4 Trouble Signals. Upon receipt of trouble signals or other signals pertaining solely to matters of equipment maintenance of the alarm system, the proprietary supervising station operator shall initiate action to perform the following, if required:

- (1) Communicate immediately with the designated person(s) to ascertain reason for the signal
- (2) Dispatch personnel to arrive within 4 hours to initiate maintenance, if necessary
- (3) Notify the fire department if required by the authority having jurisdiction, [Not required by Phoenix Fire Department Fire Prevention].
- (4) Notify the authority having jurisdiction when interruption of service exists for 4 hours or more
- (5) When equipment has been out of service for 8 hours or more, provide written notice to the authority having jurisdiction as to the nature of the signal, time of occurrence, and restoration of service [Required by Phoenix Fire Department Fire Prevention].
- **26.5.2 Indication of Remote Station Service.** Owners utilizing remote station alarm systems shall provide annual documentation to the authority having jurisdiction identifying the party responsible for the inspection, testing, and maintenance requirements of Chapter 14. This documentation shall take one of the following forms, [as part of the annual report]:
 - (1)*Affidavit attesting to the responsibilities and qualifications of the parties performing the inspection, testing, and maintenance and accepting responsibility of compliance with Chapter 14 and signed by a representative of the service provider
 - (2) Documentation indicating code compliance of the remote station alarm system issued by the organization that listed the service provider
 - (3) Other documentation acceptable to the authority having jurisdiction

26.5.3* Facilities.

26.5.3.1.3 Where permitted by the authority having jurisdiction, alarm, supervisory, and trouble signals shall be permitted to be received at a listed central supervising station [Allowed by Phoenix Fire Department Fire Prevention].

Where permitted by the authority having jurisdiction, alarm, supervisory, and trouble signals shall be permitted to be received at an alternate location approved by the authority having jurisdiction [Allowed by Phoenix Fire Department Fire Prevention].



26.5.3.3 If locations other than the communications center are used for the receipt of signals, access to receiving equipment shall be restricted in accordance with the requirements of the authority having jurisdiction.

26.5.4.4 Retransmission of an alarm signal, if required, shall be by one of the following methods, which appear in descending order of preference as follows:

- (1) A dedicated circuit that is independent of any switched telephone network. This circuit shall be permitted to be used for voice or data communications.
- (2) A one-way (outgoing only) telephone at the remote supervising station that utilizes the public-switched telephone network. This telephone shall be used primarily for voice transmission of alarms to a telephone at the communications center that cannot be used for outgoing calls.
- (3) A private radio system using the fire department frequency, where permitted by the fire department.
- (4) Other methods accepted by the authority having jurisdiction.

26.5.6 Disposition of Signals.

Upon receipt of an alarm, supervisory, or trouble signal by the remote supervising station, the operator on duty shall be responsible for immediately notifying the owner or the owner's designated representative and, where required, by the authority having jurisdiction, [not required for supervisory or trouble signals].

26.5.9 Inspection, Testing, and Maintenance.

26.5.9.2 Where required, inspection, testing, and maintenance reports shall be submitted to the authority having jurisdiction in a form acceptable to the authority having jurisdiction.

26.6.3.13* Secondary Power.

26.6.3.13.1 Premises Equipment. The secondary power capacity for all transmitters and shared equipment necessary for the transmission of alarm, supervisory, trouble, and other signals located at the protected premises shall be a minimum of 24 hours or as permitted by 10.6.7.3.1(2). Exception: Secondary power capacity for shared equipment shall be permitted to have a capacity of 8 hours where acceptable to the authority having jurisdiction and where a risk analysis is performed to ensure acceptable availability is provided, [Not accepted by Phoenix Fire Prevention].

26.6.4.1.4 Transmission Channels.

- (A) A system employing a DACT shall employ one telephone line (number). In addition, one of the following transmission means shall be employed:
 - (1) One-way private radio alarm system
 - (2) Two-way RF multiplex system
 - (3) Transmission means complying with 26.6.3



Exception: Where access to two technologies in the preceding list is not available at the protected premises, with the approval of the authority having jurisdiction, a telephone line (number) shall be permitted to be used as the second transmission means. Each DACT shall be programmed to call a second DACR line (number) when the signal transmission sequence to the first called line (number) is unsuccessful. The DACT shall be capable of selecting the operable means of transmission in the event of failure of the other means. Where two telephone lines (numbers) are used, it shall be permitted to test each telephone line (number) at alternating 6-hour intervals [Allowed by Phoenix Fire Department Fire Prevention].

- (A) A system employing a DACT shall employ one telephone line (number). In addition, one of the following transmission means shall be employed:
 - (1) One-way private radio alarm system
 - (2) Two-way RF multiplex system
 - (3) Transmission means complying with 26.6.3

Exception: Where access to two technologies in the preceding list is not available at the protected premises, with the approval of the authority having jurisdiction, a telephone line (number) shall be permitted to be used as the second transmission means. Each DACT shall be programmed to call a second DACR line (number) when the signal transmission sequence to the first called line (number) is unsuccessful. The DACT shall be capable of selecting the operable means of transmission in the event of failure of the other means. Where two telephone lines (numbers) are used, it shall be permitted to test each telephone line (number) at alternating 6-hour intervals.

27.3 Management and Maintenance.

27.3.2 Maintenance by an organization or person other than from the jurisdiction or an employee of the jurisdiction shall be by written contract, guaranteeing performance acceptable to the authority having jurisdiction.

27.5.2.8 Float-Charged Batteries.

27.5.2.8.6 Batteries shall be mounted to provide effective insulation from the ground or working platform and from other batteries. Mounting equipment shall be listed and identified for the location. It shall be permissible for the authority having jurisdiction to waive this requirement to allow the use of alternative mounting equipment where it is assured that equivalent objectives can be achieved, [with stamped engineering evaluation].

- **29.5.2.1** Fire-warning equipment used to provide required or optional detection shall produce audible fire alarm signals that comply with 29.5.2.1.1 or 29.5.2.1.2.
- **29.5.2.1.1* Smoke and Heat Alarms.** Unless exempted by applicable laws, codes, or standards, smoke or heat alarms used to provide a fire-warning function, and when two or more alarms are installed within



a dwelling unit, suite of rooms, or similar area, shall be arranged so that the operation of any smoke or heat alarm causes all alarms within these locations to sound.

Exception: The arrangement for all alarms to sound shall not be required for mechanically powered single-station heat alarms.

29.5.2.1.2 Household Fire Alarm System. Where a household fire alarm system is used to provide a firewarning function, notification appliances shall be installed to meet the performance requirements of 29.3.6.

29.5.2 Required Occupant Notification.

29.5.2.2* Unless otherwise permitted by the authority having jurisdiction, audible fire alarm signals shall sound only in an individual dwelling unit, suite of rooms, or similar area and shall not be arranged to operate fire-warning equipment or fire alarm systems outside these locations. Remote annunciation shall be permitted.