Reference: 26.6.2.4.4(2), 26.6.3.2.2.2(F), and Table A.26.6.1
TIA 13-1
(SC 12-8-38/TIA Log #1052)

Note: Text of the TIA issued and incorporated into the text of 26.6.2.4.4(2), 26.6.3.2.2.2(F), and Table A.26.6.1, therefore no separate publication is necessary.

1. Revise 26.6.2.4.4(2) to replace “24 hours” with “6 hours.”

2. Revise 26.6.3.2.2.2(F) to replace “24 hours” with “6 hours.”

3. Revise Table A.26.6.1 as follows:

Table A.26.6.1  Communications Methods for Supervising Stations

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Performance-Based Technologies 26.6.3.1</th>
<th>Digital Alarm Communicator Systems 26.6.3.2</th>
<th>Two-Way Radio Frequency (RF) Multiplex Systems 26.6.3.3.1</th>
<th>One-Way Private Radio Alarm Systems 26.6.3.3.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCC approval when applicable</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Conform to NFPA 70, National Electrical Code</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Monitoring for integrity of the transmission and communications channel</td>
<td>Monitor for integrity</td>
<td>Both the premises unit and the system unit monitor for integrity in a manner approved for the means of transmission employed. A single signal received on each incoming DACR line once every 6 hours. [ROP-483]</td>
<td>Systems are periodically polled for end-to-end communications integrity.</td>
<td>Test signal from every transmitter once every 24 hours</td>
</tr>
<tr>
<td>Annunciate, at the supervising station, the degradation and restoration of the transmission or communications channel</td>
<td>Within 60 $ minutes for a single communications path and within 6 hours for multiple communication paths</td>
<td>Within 4 minutes using alternate phone line to report the trouble</td>
<td>Not exceed 90 seconds from the time of the actual failure</td>
<td>Only monitor the quality of signal received and indicate if the signal falls below minimum signal quality specified in Code</td>
</tr>
<tr>
<td>Redundant communication path where a portion of the transmission or communications channel cannot be monitored for integrity</td>
<td>Employ a combination of two separate transmission channels alternately tested at intervals not exceeding 6 hours. [ROP-483]</td>
<td>Redundant path not required — supervising station always indicates a communications failure</td>
<td>Minimum of two independent RF paths must be simultaneously employed</td>
<td></td>
</tr>
</tbody>
</table>


deleted a
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Performance-Based Technologies 26.6.3.1</th>
<th>Digital Alarm Communicator Systems 26.6.3.2</th>
<th>Two-Way Radio Frequency (RF) Multiplex Systems 26.6.3.3.1</th>
<th>One-Way Private Radio Alarm Systems 26.6.3.3.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interval testing of the backup path(s)</td>
<td>When two phone lines are used, test alternately every 6 hours. Testing for other back-up technologies, see 26.6.3.2.1.4(B). [ROP-483]</td>
<td>Backup path not required</td>
<td>No requirement, because the quality of the signal is continuously monitored</td>
<td></td>
</tr>
<tr>
<td>Annunciation of communication failure or ability to communicate at the protected premises</td>
<td>Systems where the transmitter at the local premises unit detects a communication failure, the premises unit will annunciate the failure within 200 seconds the failure</td>
<td>Indication of failure at premises due to line failure or failure to communicate after from 5 to 10 dialing attempts</td>
<td>Not required — always annunciated at the supervising station that initiates corrective action</td>
<td>Monitor the interconnection of the premises unit elements of transmitting equipment, and indicate a failure at the premises or transmit a trouble signal to the supervising station.</td>
</tr>
<tr>
<td>Time to restore signal-receiving, processing, display, and recording equipment</td>
<td>Where duplicate equipment not provided, spare hardware required so a repair can be within 30 minutes.</td>
<td>Spare digital alarm communicator receivers required for switchover to backup receiver in 30 seconds. One backup system unit for every five system units.</td>
<td>Where duplicate equipment not provided, spare hardware required so a repair can be effected within 30 minutes</td>
<td>Where duplicate equipment not provided, spare hardware required so a repair can be effected within 30 minutes</td>
</tr>
<tr>
<td>Loading capacities for system units and transmission and communications channels</td>
<td>512 independent alarm systems on a system unit with no backup. Unlimited if you can switch to a backup in 30 seconds.</td>
<td>See Table 26.6.3.2.2.2(C) for the maximum number of transmitters on a hunt group in a system unit</td>
<td>512 buildings and premises on a system unit with no backup. Unlimited if you can switch to a backup in 30 seconds.</td>
<td>512 buildings and premises on a system unit with no backup. Unlimited if you can switch to a backup in 30 seconds.</td>
</tr>
<tr>
<td>End-to-end communication time for an alarm</td>
<td>90 seconds from initiation of alarm until displayed to the operator and recorded on a medium from which the information can be retrieved</td>
<td>Off-hook to on-hook not to exceed 90 seconds per attempt. 10 attempts maximum, 900 seconds maximum for all attempts.</td>
<td>90 seconds from initiation until it is recorded</td>
<td>90% probability to receive an alarm in 90 seconds, 99% probability in 180 seconds, 99.999% probability in 450 seconds</td>
</tr>
<tr>
<td>Record and display rate of subsequent alarms at supervising station</td>
<td>Not slower than one every 10 additional seconds</td>
<td>Not addressed</td>
<td>When any number of subsequent alarms come in, record at a rate not slower than one every additional 10 seconds</td>
<td>When any number of subsequent alarms come in, record at a rate not slower than one every additional 10 seconds</td>
</tr>
<tr>
<td>Signal error detection and correction</td>
<td>Signal repetition, parity check, or some equivalent means of error detection and correction must be used.</td>
<td>Signal repetition, digital parity check, or some equivalent means of signal verification must be used.</td>
<td>Not addressed</td>
<td>Not addressed</td>
</tr>
<tr>
<td>Path sequence priority</td>
<td>No need for prioritization of paths. The requirement is that both paths are equivalent.</td>
<td>The first transmission attempt uses the primary channel.</td>
<td>Not addressed</td>
<td>Not addressed</td>
</tr>
<tr>
<td>Carrier diversity</td>
<td>Where long distance service (including WATS) is used, the second telephone number must be provided by a different long distance service provider where there are multiple providers.</td>
<td>Not addressed</td>
<td>Not addressed</td>
<td>Not addressed</td>
</tr>
</tbody>
</table>
### Table A.26.6.1 Communications Methods for Supervising Stations (continued)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Performance-Based Technologies 26.6.3.1</th>
<th>Digital Alarm Communicator Systems 26.6.3.2</th>
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<th>One-Way Private Radio Alarm Systems 26.6.3.3.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughput probability</td>
<td>Demonstrate 90% probability of a system unit immediately answering a call or follow the loading Table 16.6.3.2.2.2(C). One-way radio backup demonstrates 90% probability of transmission.</td>
<td>Not addressed</td>
<td>90% probability to receive an alarm in 90 seconds, 99% probability in 180 seconds, 99.999% in probability 450 seconds</td>
<td></td>
</tr>
<tr>
<td>Unique premises identifier</td>
<td>If a transmitter shares a transmission or communication channel with other transmitters, it must have a unique transmitter identifier.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Unique flaws</td>
<td>From time to time, there may be unique flaws in a communication system. Unique requirements must be written for these unique flaws.</td>
<td>If call forwarding is used to communicate to the supervising station, verify the integrity of this feature every 4 hours.</td>
<td>None addressed</td>
<td>None addressed</td>
</tr>
<tr>
<td>Signal priority</td>
<td>If the communication methodology is shared with any other usage, all alarm transmissions must preempt and take precedence over any other usage. Alarm signals take precedence over supervisory signals.</td>
<td>Chapter 1 on fundamentals requires that alarm signals take priority over supervisory signals unless there is sufficient repetition of the alarm signal to prevent the loss of an alarm signal.</td>
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</tr>
<tr>
<td>Sharing communications equipment on premises</td>
<td>If the transmitter is sharing on-premises communications equipment, the shared equipment must be listed for the purpose (otherwise the transmitter must be installed ahead of the unlisted equipment).</td>
<td>Disconnect outgoing or incoming telephone call and prevent its use for outgoing telephone calls until signal transmission has been completed.</td>
<td>Not addressed</td>
<td>Not addressed</td>
</tr>
</tbody>
</table>

4. Revise A.26.6.3.2.2.2(C)(1)(d) to replace “24-hour” with “6-hour.”

5. Delete A.26.6.3.2.2.2(F) in its entirety.

**Issue Date:** August 9, 2012  
**Effective Date:** August 29, 2012

(Note: For further information on NFPA Codes and Standards, please see [www.nfpa.org/codelist](http://www.nfpa.org/codelist))

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