NFPA® 915

Standard for Remote Inspections and Tests

2024 Edition

NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471
An International Codes and Standards Organization

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NFPA® 915

Standard for

Remote Inspections and Tests

2024 Edition

This edition of NFPA 915, *Standard for Remote Inspections and Tests*, was prepared by the Technical Committee on Remote Inspections. It was issued by the Standards Council on April 23, 2023, with an effective date of May 13, 2023.

This edition of NFPA 915 was approved as an American National Standard on May 13, 2023.

Origin and Development of NFPA 915

Interest in the concept of remote inspections began in earnest at NFPA with the NFPA Building Code Development Committee (BCDC), a former NFPA advisory committee, who explored this topic over several years. In 2017, an NFPA Journal article, "Verified by Video," written by the BCDC chair (and the first chair of the Technical Committee on Remote Inspections) Jim Muir, was published. The article described the author's experience with his jurisdiction's remote inspection program, introducing this concept to a wider fire protection audience. In April 2018, a project request was received by the NFPA Standards Council to explore the creation of a new technical committee to develop a standard on remote inspections. In August 2018, the NFPA BCDC published a white paper, "Conducting Remote Video Inspections," which provided an overview of remote inspection methodologies at the time, as well as practical considerations for application. In December 2018, the NFPA Standards Council approved the creation of the Technical Committee on Remote Inspections, after which a call for members was posted.

Draft development of what would become NFPA 915, *Standard for Remote Inspections and Tests*, began in August 2019 and was completed in May 2020. In March 2020, the world experienced the COVID-19 pandemic, which accelerated interest in remote inspection uses and capabilities. In August 2020, the NFPA Standards Council approved the request of the technical committee to enter NFPA 915 into its initial revision cycle for public review. The technical committee met in both 2021 and 2022 to revise the standard in accordance with the NFPA standards development process, creating the inaugural edition of NFPA 915.

Key concepts from the inaugural edition include, but are not limited to, the following:

(1) The standard applies to remote inspections, tests, automated inspections and testing, and distance monitoring, where permitted by the authority having jurisdiction (AHJ) (Chapter 1).
(2) Several new definitions have been created to help define terms as used within the document. (Chapter 3).
(3) Responsibilities for the property owner or designated representative, contractor of work, entity performing remote inspections or tests, and the AHJ (Chapter 4).
(4) Location and timestamp requirements (Chapter 5).
(5) Data collection/transmission devices, grouped as wireless, digital, nondigital, vehicles, and other data collection/transmission devices (Chapter 6).
(6) Data collection formats, grouped as video, audio, photography, written, automated testing, and other formats (Chapter 7).
(7) Data and content protection, retention, and ownership requirements (Chapter 8).

Technical Committee on Remote Inspections

Jim Muir, *Chair*
Clark County Building Safety Division, WA [E]

Hugo Aguilar, International Association of Plumbing & Mechanical Officials (IAPMO), CA [E]

Yousef Abdullah Alsadi, UAE Civil Defense, United Arab Emirates [E]

Ghaith Nasri Bakir, UL, United Arab Emirates [RT]
Rep. UL LLC

Keith Bartlett, Electrical Safety Authority, Canada [E]

Ralph E. Bless, Jr., Telgian Corporation, GA [SE]

Kevin Joseph Brennan, Fire Department City of New York (FDNY), NY [E]

Joseph R. Cervantes, Space Age Electronics, MA [M]

Shane M. Clary, Bay Alarm Company, CA [IM]

Donald R. Cook, Dewberry/Edmonds Engineering, AL [E]
Rep. International Association of Electrical Inspectors

Dustin Davey, Smyrna Fire Department, GA [E]

Nicholas A. Dawe, Cobb County Fire Marshal's Office, GA [E]

Tommy Demopoulos, Tamarac Fire Rescue, FL [E]
Rep. International Fire Marshals Association

Larry Felker, Belimo Aircontrols, NV [M]

Matthew Foley, SLS Consulting, Inc., MA [SE]

Jacob Frasier, Honeywell Fire Systems, CT [M]

Wayne Robert Griswold, TerpConsulting, CO [SE]

Kevin Ryan Hall, American Fire Sprinkler Association (AFSA), MD [IM]

Michael R. Hill, S-E-A Limited, FL [SE]

Aaron C. Jones, GHD Inc., MD [SE]

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Bassem Gamil Khalil, City Of Toronto, Canada [E]

William E. Koffel, Koffel Associates, Inc., MD [SE]

Ryan Kunst, MN Department Of Public Safety, MN [E]

Jon Laux, Twin Falls County, ID [E]

Youngkyu Lee, Korean Fire Protection Association (KFPA), South Korea [U]

Jack L. Lyons, National Electrical Manufacturers Association (NEMA), MA [M]

Michael MacDonnell, Sprinkler Fitters Local 550 JATC, MA [L]

Maria B. Marks, Siemens Industry, Inc., MD [M]
Rep. Automatic Fire Alarm Association, Inc.

Thomas W. McKeon, Dual North America, NJ [I]

John J. McSheffrey, Jr., Keltron Corporation/en-Gauge Inc./MIJA Industries, Inc., MA [M]

Derrick Mitchell, LS Systems, MD [IM]

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Top Myers, Myers Risk Services, Inc., FL [IM]
Rep. National Fire Sprinkler Association

Zachary Niehues, University of Colorado Boulder, CO [U]

Jeff Pickles, Green Grid Inc., CA [U]

Mark Rodriguez, Sunrun, CA [IM]

Mohammed A. Saeefan, Saudi Aramco, Saudi Arabia [U]

Joe Scibetta, BuildingReports, GA [M]

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Brian Scot Stockstill, Verisk Analytics / Insurance Services Office, Inc., TX [I]

Donald E. Sweeten, Local 692, PA [L]
Rep. United Assn. of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry

Alexander B. Tiechner, ACCO Engineered Systems, CA [IM]

Jeffrey S. Tubbs, Arup, MA [SE]

Terry L. Victor, Johnson Controls, MD [M]

Jason E. Webb, Potter Electric Signal Company, MO [M]

Bradley J. Wilcox, LVX Global, GA [SE]

Alternates

Stephen Goyette, Telgian, CA [SE]
(Alt. to Ralph E. Bless, Jr.)

Rick Heffernan, SDi, NJ [M]
(Alt. to Maria B. Marks)

Donald R. Iverson, Schneider Electric, MI [M]
(Alt. to Jack L. Lyons)

Robert J. James, UL LLC, AZ [RT]
(Alt. to Ghaith Nasri Bakir)

John T. Johnson, American Fire Sprinkler Association (AFSA), PA [IM]
(Alt. to Kevin Ryan Hall)

Michael Knipple, Belimo Americas, CT [M]
(Alt. to Larry Felker)

Zachary L. Magnone, Johnson Controls, RI [M]
(Alt. to Terry L. Victor)

James McHugh, AGF Manufacturing, Inc., PA [M]
(Alt. to Joe Scibetta)

Richard Jay Roberts, Honeywell Fire Safety, IL [M]
(Alt. to Jacob Frasier)

George W. Stanley, Wiginton Fire Protection Engineering, Inc., FL [IM]
(Alt. to Top Myers)

Steve Steele, National Sprinkler Industry JTAC, Canada [L]
(Alt. to Michael MacDonnell)

Robert J. Teta, Potter Electric Signal Company, LLC., KY [M]
(Alt. to Jason E. Webb)

Trinidad John Uribe, UA Sprinkler Fitters Local 417, MN [L]
(Alt. to Donald E. Sweeten)

Andrew B. Woodward, Arup, MA [SE]
(Alt. to Jeffrey S. Tubbs)

Kevin Carr, NFPA Staff Liaison

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NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

Committee Scope: This Committee shall be responsible for establishing requirements for the performance and use of remote methodologies, systems and components (including digital video, digital images, digital audio, among others) whether live or submitted as an electronic file for subsequent review to conduct remote inspections of buildings, structures, systems (e.g. electrical, HVAC, fire protection, etc.) and premises including underground spaces and aerial areas. Requirements for collection, custody and maintenance of the data available from remote inspections shall also be the responsibility of this Technical Committee.

Contents

NFPA 915

Standard for

Remote Inspections and Tests

2024 Edition

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NOTICE: An asterisk (*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

A reference in brackets [ ] following a section or paragraph indicates material that has been extracted from another NFPA document. Extracted text may be edited for consistency and style and may include the revision of internal paragraph references and other references as appropriate. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

Information on referenced and extracted publications can be found in Chapter 2 and Annex B.

Chapter 1 Administration

1.1 Scope.

1.1.1* This standard shall provide the minimum requirements for the procedures, methods, transmission, data collection, and documentation associated with remote inspections and tests, automated inspection and testing, and distance monitoring performed in accordance with other governing laws, codes, and standards.

1.1.2* Title. NFPA 915 shall be referred to herein as "this standard" or "the standard."

1.2* Purpose. The purpose of this standard shall be to provide minimum requirements for remote inspections and tests, automated inspection and testing, and distance monitoring to deliver an equivalent or improved result than that which would be obtained with other inspection, testing, and monitoring methods.

1.3* Application.

1.3.1* The provisions of the standard shall apply to all types of inspections and tests, automated inspections and testing, and distance monitoring as allowed by the authority having jurisdiction.

1.3.2* The authority having jurisdiction shall determine applicability of the inspection or test, automated inspection and testing, and distance monitoring categories and conditions that will be allowed.

1.3.3* References to Requirements of Other Codes or Standards. Where the requirements of a referenced code or standard differ from the requirements of this standard, the authority having jurisdiction shall determine the applicable code or standard.

1.4 Equivalency. Nothing in this standard is intended to prevent the use of systems, methods, or devices of superior or equivalent effectiveness over those prescribed by this standard.

1.4.1 Technical documentation shall be submitted to the authority having jurisdiction to demonstrate equivalency.

1.4.2 The system, method, or device shall be approved for the intended purpose by the authority having jurisdiction.

1.5 New Technology.

1.5.1 Nothing in this standard shall be intended to restrict new technologies or alternative arrangements, provided the level of safety prescribed by this standard is not lowered and is approved by the authority having jurisdiction.

1.5.2 Materials, devices, or methods not specifically designated by this standard shall be used in complete accord with all conditions, requirements, and limitations of their listings.

1.6 Units and Formulas.

1.6.1 The units of measure in this standard are presented first in US customary units (inch-pound units). International System (SI) of Units follow the inch-pound units in parentheses.

1.6.2 Either system of units shall be acceptable for satisfying the requirements in the standard.

1.6.3 Users of this standard shall apply one system of units consistently and shall not alternate between units.

1.6.4 The values presented for measurements in this standard are expressed with a degree of precision appropriate for practical application and enforcement. It is not intended that the application or enforcement of these values be more precise than the precision expressed.

1.6.5 Where extracted text contains values expressed in only one system of units, the values in the extracted text have been retained without conversion to preserve the values established by the responsible technical committee in the source document.

1.7 Enforcement. This standard shall be administered and enforced by the authority having jurisdiction designated by the governing authority.

1.7.1* The authority having jurisdiction shall determine whether the provisions of this standard are met.

1.7.2 The authority having jurisdiction shall be permitted to modify requirements of this standard when permitted by the adopted governing laws, codes, regulations, and standards.

1.7.3 Any requirements that are essential for the safety of building occupants and that are not specifically provided for by this standard shall be determined by the authority having jurisdiction. [***101*:**4.6.1.2]

1.7.4* The authority having jurisdiction shall be permitted to perform the remote inspection or test or to allow or require a remote inspection or test by an approved independent third party.

1.7.5 The authority having jurisdiction shall be permitted to modify requirements of this standard upon application in writing by the owner or designated representative, provided the intent of the standard has been met.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 2400, *Standard for Small Unmanned Aircraft Systems (sUAS) Used for Public Safety Operations,* 2019 edition.

2.3 Other Publications.

2.3.1 ASCE Publications. American Society of Civil Engineers, 1801 Alexander Bell Drive, Reston, VA 20191-4400.

ASCE/SEI 7, *Minimum Design Loads for Buildings and Other Structures*, 2022.

2.3.2 US Government Publications. US Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401-0001.

Title 14, Code of Federal Regulations, Part 107, "Small Unmanned Aircraft Systems".

2.3.3 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2020.

2.4 References for Extracts in Mandatory Sections.

NFPA 1, *Fire Code,* 2024 edition.

NFPA 3 *, Standard for Commissioning of Fire Protection and Life Safety Systems,* 2021 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems,* 2022 edition.

NFPA *101®, Life Safety Code®,* 2024 edition.

NFPA 914, *Code for the Protection of Historic Structures,* 2023 edition.

NFPA 5000®, Building Construction and Safety Code®, 2024 edition.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary*, 11th edition, is the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

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

3.2.3 Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

3.2.4* Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

3.2.5 Shall. Indicates a mandatory requirement.

3.2.6 Should. Indicates a recommendation or that which is advised but not required.

3.2.7 Standard. An NFPA standard, the main text of which contains only mandatory provisions using the word "shall" to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions are not to be considered a part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational note, or other means as permitted in the NFPA manuals of style. When used in a generic sense, such as in the phrases "standards development process" or "standards development activities," the term "standards" includes all NFPA standards, including codes, standards, recommended practices, and guides.

3.3 General Definitions.

3.3.1 Automated Inspection and Testing. The performance of inspections and tests at a distant location from the system or component being inspected or tested through the use of electronic devices or equipment installed for the purpose. [**13,** 2022]

3.3.2* Building Systems. An assembly or set of units made up of components that provide services to spaces in a building. [**914,** 2023]

3.3.3* Buildings. Structures, usually enclosed by walls and a roof, constructed to provide support or shelter for an intended occupancy. [**ASCE/SEI** 7:1.2.1]

3.3.4 Construction. Work or operations necessary or incidental to land clearing, grading, excavation, and filling; or erection, demolition, assembling, installing, or equipping of buildings or structures; or alterations incidental thereto, or to the finished product of construction operations. [**5000,** 2024]

3.3.5 Construction Documents. Documents that consist of scaled design drawings and specifications for the purpose of construction of new facilities or modification to existing facilities. [**1,** 2024]

3.3.6 Contractor. One who contracts on predetermined terms to provide labor and materials and who is responsible for performance of a construction job in accordance with construction documents. [**5000,** 2024]

3.3.7 Contractor of Work. An individual or company responsible to provide labor and materials and for the performance of an installation in accordance with the construction documents, codes, installation standards, and manufacturer's specifications for the work to be remotely inspected.

3.3.8* Data. Factual information acquired in digital or nondigital format that can be transmitted, stored, or used as a basis for reasoning, discussion, or calculations.

3.3.9* Data Device. Any device that collects and stores data and/or transmits data to and from a remote location.

3.3.10 Data-Sensing Device. Any device which senses input from the physical environment and outputs it as usable data.

3.3.11 Distance Monitoring. The monitoring of various conditions of a system or component from a distant location from the system or component through the use of electronic devices, meters, or equipment installed for the purpose. [**13,** 2022]

3.3.12 Entity Performing Remote Inspection or Test. An individual or company responsible for the collection and/or transmitting of the data acquired from the inspection or test.

3.3.13 Equivalency. An alternative means of providing an equal or greater degree of safety than that afforded by strict conformance to prescribed codes and standards. [**5000,** 2024]

3.3.14* Inspection. For the purposes of this standard, the examination or witnessing of a product, process, installation, or test to determine conformity with approved documents, including, but not limited to, construction documents and applicable codes, standards, and manufacturer's specifications.

3.3.15 Inspection Area. That portion of a structure or site where an organized or formal evaluation will take place.

3.3.16 Permit. A document issued by the AHJ for the purpose of authorizing performance of a specified activity. [**1,** 2024]

3.3.17 Property Owner. Any person, agent, firm, entity, or corporation having a legal or equitable interest in a property, building, or structure.

3.3.18 Qualified. A competent and capable person who has demonstrated the skills, knowledge, and/or training for a given field acceptable to the AHJ.

3.3.19* Remote Inspection. The use of audio/visual devices and/or other technologies to perform an inspection or witness a test for the purpose of remote verification.

3.3.20 Remote Inspection or Test Plan. A procedure that describes the remote inspection or test and outcomes and describes responsibilities to parties involved in the process.

3.3.21 Test. A procedure intended to establish the operational status or performance of a system or component. [**3,** 2021]

3.3.22 Unmanned Aircraft. An aircraft operated without the possibility of direct human intervention from within or on the aircraft. [**14 CFR Part 107,** 2016]

Chapter 4 General Requirements

4.1 Responsibility of the Property Owner or Designated Representative. It shall be acceptable for the owner to delegate the responsibility for remote inspection or test activities to a designated representative.

4.1.1 Access. The property owner or designated representative shall provide access to appropriate locations as necessary for remote inspection or test.

4.1.2* The property owner or designated representative shall also provide appropriate safeguards to prevent the unauthorized recording of video, images, or audio of sensitive or classified subject(s).

4.1.3* Notification.

4.1.3.1 The property owner or designated representative shall notify all applicable parties regarding the remote inspection or test.

4.1.3.2 The property owner or designated representative shall be responsible to obtain any required permissions from all applicable parties regarding the remote inspection or test.

4.1.4 The owner or designated representative shall comply with AHJ requirements for remote inspections and tests as applicable.

4.2 Responsibility of the Contractor of Work.

4.2.1 Permission from the Property Owner. The contractor of work shall obtain permission from the property owner or designated representative to plan and perform a remote inspection or test.

4.2.2 The contractor of work shall be responsible for providing a qualified entity to perform the remote inspections and tests.

4.2.3 The contractor of work shall comply with AHJ requirements for remote inspections and tests as applicable.

4.3* Responsibility of the Entity Performing Remote Inspections and Tests.

4.3.1* Permission from the Property Owner. The entity performing the remote inspection or test shall have permission from the property owner or designated representative to access the property and conduct a remote inspection or test.

4.3.2 The entity performing remote inspections and tests shall comply with AHJ requirements for remote inspections and tests as indicated in 4.4.1.

4.3.2.1 It shall be the responsibility of the entity performing remote inspections and tests to ensure the accuracy, quality, verification, authentication, and usability of data or information collected.

4.3.2.2 The entity performing remote inspections and tests shall be qualified.

4.3.2.3* A written inspection or test plan shall be submitted to and approved by the AHJ unless exempt by the AHJ.

4.3.2.3.1 The inspection or test plan shall be submitted in a manner acceptable to the AHJ.

4.3.2.3.2* The inspection or test plan shall include pertinent administrative information necessary for the AHJ to approve the use of the remote inspection or test process.

4.3.2.3.3* The inspection or test plan shall include the procedure in which the remote inspection or test will be performed.

4.3.3 Identification of Participants.

4.3.3.1 It shall be the responsibility of the entity performing remote inspections and tests to identify all personnel participating in the remote inspection or test by providing all of the following:

(1) Name of each individual
(2) Company, organization, or affiliation for each individual
(3) Role each individual is performing as part of the work being done or remote inspection or test being performed

4.3.3.2 The identification of participants shall be documented within the remote inspection or test video and/or audio format transmitted to the AHJ.

4.4 Responsibility of the AHJ.

4.4.1* The AHJ shall be responsible for providing the following criteria related to remote inspections or tests:

(1) Suitability of performing the inspection or test remotely
(2) Limitations
(3) Documentation
(4) Technology
(5) Submission format
(6) Scheduling requirements
(7) Modifications
(8) Record retention

4.4.2 Remote Inspection or Test Results. The AHJ shall approve the results of the remote inspection or test.

4.4.3 Where other governing laws, codes, or standards establish success or failure criteria, they shall be the basis for the criteria described in 4.4.2.

4.4.4 The AHJ shall determine the appropriate time frame to provide remote inspection or test results to the responsible party.

4.5 Safety. Remote inspection or test activities shall be conducted in accordance with applicable safety regulations.

4.6 Permits or Approvals. Where required, the property owner or designated representative shall have in place appropriate permits or approvals for the work to be remotely inspected.

4.7 Supporting Documents.

4.7.1 All plans, specifications, drawings, details, and records shall be made available for the remote inspection or test as required.

4.7.2 Documents shall be made available in either hard copy or digital format at the discretion of the AHJ.

Chapter 5 Location and Timestamp Requirements

5.1* General. It shall be the responsibility of the entities performing remote inspections and tests to verify the location of the work to be inspected.

5.2 Structures.

5.2.1* Address. The full address shall be verified and/or documented at the time of the remote inspection or test.

5.2.2* Structure. The type of structure shall be verified and/or documented at the time of the remote inspection or test.

5.2.3* Inspection or Test Areas Within a Structure. The inspection or test areas within a structure shall be verified and/or documented at the time of the remote inspection or test.

5.3* Occupancy Type. Where required, the type of occupancy shall be verified and documented at the time of the remote inspection or test.

5.4 Nonstructures and Site Work. A full address, GIS coordinates, or other approved format shall be verified and/or documented at the time of the remote inspection or test.

5.5 Timestamp Requirements.

5.5.1* Inspection or Test Date. The date that the remote inspection or test is performed shall be verified and documented by the owner, or their designee, and provided to the AHJ.

5.5.2* Inspection or Test Local Time. The time of day that the remote inspection or test is performed shall be verified and documented by the owner, or their designee, and provided to the AHJ.

Chapter 6 Data Collection/Transmission Devices

6.1 General.

6.1.1* Devices. Data collection/transmission devices shall be approved for use.

6.1.2* Data Collection Capabilities by Device. (Reserved)

6.2* Wireless Devices.

6.2.1 Wireless Device Types. All of the following shall be considered wireless devices:

(1) Cellular telephones/smartphones
(2) Satellite telephones
(3) Cellular tablets/pads
(4)* Cellular-connected computers
(5) Devices using any of the following:
  (a)* Wireless local area networks (WLAN)
  (b)* Wireless personal area networks (WPAN)
  (c)* Wireless wide area networks (WWAN)
(6) Other wireless devices in accordance with 6.2.3

6.2.2* Requirements.

6.2.2.1 Wireless devices listed in 6.2.1 shall comply with the applicable governing authority.

6.2.2.2 Wireless devices listed in 6.2.1 shall have minimum requirements as approved.

6.2.3* Other Wireless Devices. Other wireless devices approved by the AHJ shall be permitted.

6.3* Digital Devices.

6.3.1 Digital Device Types All of the following shall be considered digital devices:

(1) Digital telephones
(2) Digital audio recorders
(3) Digital cameras
(4) Digital video recorders
(5) Computers
(6) Other digital devices in accordance with 6.3.3

6.3.2 Requirements.

6.3.2.1 Digital devices listed in 6.3.1 shall comply with the applicable governing authority.

6.3.2.2 Digital devices listed in 6.3.1 shall have minimum requirements as approved.

6.3.3* Other Digital Devices. Other digital devices shall be subject to approval by the AHJ.

6.4* Nondigital Devices.

6.4.1 Nondigital Device Types. All of the following shall be considered nondigital devices:

(1) Analog telephones
(2) Audio cassette recorders
(3)* Radios
(4) Film cameras
(5) Video cassette recorders
(6)* Wave detection technologies
(7) Other nondigital devices in accordance with 6.4.3

6.4.2 Requirements.

6.4.2.1 Nondigital devices listed in 6.4.1 shall comply with the applicable governing authority.

6.4.2.2 Nondigital devices listed in 6.4.1 shall have minimum requirements as approved.

6.4.3 Other Nondigital Devices. Other nondigital devices shall be subject to approval by the AHJ.

6.5* Vehicles.

6.5.1 Nonaerial Vehicles.

6.5.1.1* Nonaerial Manned Vehicles. Nonaerial manned vehicles shall comply with all of the following:

(1) Used in accordance with all appropriate authorities
(2) Used only by approved operators
(3) Listed, where applicable
(4) Used in accordance with the manufacturer's written instructions
(5) Used in accordance with any governing codes, standards, or promulgated laws
(6) Used with all proper safety equipment and procedures, where applicable

6.5.1.2* Nonaerial Unmanned Vehicles. Nonaerial unmanned vehicles shall comply with all of the following:

(1) Used in accordance with all appropriate authorities
(2) Used only by approved operators
(3) Listed, where applicable
(4) Used in accordance with the manufacturer's written instructions
(5) Used in accordance with any governing codes, standards, or promulgated laws

6.5.1.3* Other Nonaerial Unmanned Vehicles. Other nonaerial manned vehicles shall comply with all of the following:

(1) Used in accordance with all appropriate authorities
(2) Used only by approved operators
(3) Listed, where applicable
(4) Used in accordance with the manufacturer's written instructions
(5) Used in accordance with any governing codes, standards, or promulgated laws
(6) Used with all proper safety equipment and procedures, where applicable

6.5.2 Aerial Vehicles.

6.5.2.1* Manned Aerial Vehicles. Manned aerial vehicles shall comply with all of the following:

(1) Used in accordance with all appropriate authorities
(2) Used only by approved operators
(3) Used in accordance with all governing codes, standards, or promulgated laws
(4) Used with all proper safety equipment and procedures, where applicable

6.5.2.2* Unmanned Aerial Vehicles.

6.5.2.2.1* Unmanned Aircraft.

6.5.2.2.1.1* Small Unmanned Aircraft Systems (sUAS). The use of small unmanned aircraft (sUAS), and its associated systems, shall be subject to approval by the AHJ.

6.5.2.2.1.2* Compliance (Reserved).

6.5.2.2.1.3* Remote Pilot in Command. All small unmanned aircraft shall have a qualified remote pilot in command.

6.5.2.2.1.4* Public Safety Entities. The use of small unmanned aircraft, when used for public safety operations, shall comply with NFPA 2400.

6.5.2.2.1.5* Requirements. Data collected from small unmanned aircraft (sUAS), and its associated systems, shall comply with the applicable governing authority.

6.6* Other Data Collection/Transmission Devices.

6.6.1* Other Vehicles.

6.6.1.1 Other small unmanned aerial vehicles shall be subject to approval by the AHJ.

6.6.1.2 Such vehicles shall have minimum requirements as approved.

6.6.2* Data-Sensing Devices. Unless required by other governing laws, codes, or standards, data-sensing devices shall not be required to be listed.

Chapter 7 Data Collection Formats

7.1* General. The use of specific data collection formats shall be subject to approval by the AHJ.

7.1.1* Sender. For the purposes of this chapter, where the term *sender* is used, it shall be the entity or device that submits a format type to a receiver.

7.1.2* Receiver. For the purposes of this chapter, where the term *receiver* is used, it shall be the entity, device, or equipment that receives a format type from a sender.

7.2 Video Formats.

7.2.1 Live Video. Where all of the following apply, the format shall be considered live video:

(1)* Video signals that are transmitted in real time between the sender and receiver
(2) The ability for both the sender and receiver to communicate

7.2.1.1 Minimum Requirements. The following minimum requirements for live video shall be observed:

(1)* Only approved level of interruption of video or audio signals
(2)* Approved amount of light for viewing
(3)* Approved quality of live video
(4)* Approved quality of live audio

7.2.2 Recorded Video. Where all of the following apply, the format shall be considered recorded video:

(1)* Video and audio signals that were recorded in the chronological past
(2) Video that is provided by the sender to the receiver after the video was created

7.2.2.1 Minimum Requirements. The following minimum requirements of recorded video shall be observed:

(1)* Approved amount of light for viewing
(2)* Approved quality of recorded video
(3)* Approved quality of recorded audio
(4)* Location, date, and timestamp requirements in accordance with Chapter 5

7.2.2.2* Manual means of supplying recorded video shall be subject to approval by the AHJ.

7.2.2.3 Other Requirements (Reserved).

7.2.3 Other Video Formats. Other video formats shall be subject to approval by the AHJ.

7.3 Audio Formats.

7.3.1 Live Audio.

7.3.1.1* Live Audio (In Person). Where all of the following apply, the format shall be considered live audio (in person):

(1)* Audio signals that are transmitted in real time between the sender and receiver with or without the use of data collection/transmission devices
(2) The ability for both the sender and receiver to communicate effectively

7.3.1.2 Minimum Requirements. The following minimum requirements of live audio (in person) shall be observed:

(1) As approved
(2)* In a language that is understood by both the sender and receiver

7.3.2* Live Audio (Data Collection/Transmission Devices). Where all of the following apply, the format shall be considered live audio (data collection/transmission devices):

(1)* Audio signals that are transmitted in real time between the sender and receiver with the use of data collection/transmission devices
(2) The ability for both the sender and receiver to hear adequately
(3) The ability for both the sender and receiver to communicate effectively

7.3.2.1 Minimum Requirements. The following minimum requirements of live audio (data collection/transmission devices) shall be observed:

(1)* Acceptable quality
(2)* Approved format

7.3.2.2 Other Requirements (Reserved).

7.3.3 Recorded Audio. Where all of the following apply, the format shall be considered recorded audio:

(1)* Audio signals that were recorded in the chronological past
(2) Audio that is provided to the receiver after the audio was created

7.3.3.1 Minimum Requirements. The following minimum requirements of recorded audio shall be observed:

(1)* Acceptable quality
(2)* Approved format

7.3.3.2 Manual means of supplying recorded audio shall be approved by the AHJ.

7.3.3.3 Other Audio Formats. Other audio formats shall be subject to approval by the AHJ.

7.4 Photography Formats.

7.4.1 Recorded Digital Photography. Where all of the following apply, the format shall be considered recorded digital photography:

(1) Digital photography that was recorded in the chronological past
(2) Digital photography that is provided to the receiver after the image was created
(3) Digital photography that was created by a wireless device or a digital device

7.4.2 Minimum Requirements. The following minimum requirements of recorded digital photography shall be observed:

(1)* Acceptable quality
(2)* Approved format
(3)* Acceptable photography file size
(4) Dated and timestamped

7.4.3 Recorded Nondigital Photography. Where all of the following apply, the format shall be considered recorded nondigital photography:

(1) Nondigital photography that was recorded in the chronological past
(2) Nondigital photography that is provided to the receiver after the image was created
(3) Nondigital photography that was created by a nondigital collection/transmission device

7.4.4 Minimum Requirements. The following minimum requirements of recorded nondigital photography shall be observed:

(1)* Acceptable quality
(2)* Approved format
(3)* Acceptable photograph size
(4) Dated and timestamped

7.5 Written Formats.

7.5.1* Written formats shall be subject to approval by the AHJ.

7.5.2 Written formats shall have minimum requirements as approved.

7.6 Automated Testing Data Formats.

7.6.1 Automated testing data shall be in an approved format.

7.6.2* Automated testing data shall have minimum requirements as approved.

7.7* Other Data Collection Formats.

7.7.1 Other data collection formats shall be subject to approval by the AHJ.

7.7.2 Such formats shall have minimum requirements as approved.

Chapter 8 Data and Content Protection, Retention, and Ownership

8.1 General. Data and content shall be administered in accordance with this chapter.

8.1.1* For the purposes of this chapter, content shall be defined as the accumulated data from a data collection/transmission device during a remote inspection or test.

8.2* Cybersecurity. (Reserved)

8.3 Submission of Data and Content.

8.3.1 The collection of data shall be in accordance with Chapter 7.

8.3.2* Remote methods, systems, components, and technologies used for the submission of content and subsequent evaluation shall be subject to approval by the AHJ.

8.3.3* Subject to the approval by the AHJ, collection of content for remote inspections and tests shall be a live submission or submitted as an electronic file.

8.4 Transmission of Content.

8.4.1 The submission of content shall be transmitted by any of the means as approved by the AHJ in accordance with 8.4.2 through 8.4.4.

8.4.2* Digital Transmission. Content shall be transmitted via secured electronic means.

8.4.3 Physical Transmission. Content shall be transmitted in an approved tangible form, which includes the use of postal or carrier operations.

8.4.4* Live Transmission. Content shall be transmitted using real-time means.

8.4.5* Verification of Transmission. An acknowledgement that transmission was received by the AHJ shall be documented.

8.5 Custody of Content.

8.5.1* Custody of the content of a remote inspection or test shall be subject to the approval of all parties.

8.5.2* Where required, the custody of content shall include the following:

(1) The storage and delivery of content in accordance with Section 8.4
(2) A secure method that is acceptable to the AHJ
(3) Capture and storage of content that is secured from cyber-security threats or physical damage

8.6* Retention of Content. The content of a remote inspection or test shall be retained as required by the AHJ, other governing laws, codes, or standards.

Annex A Explanatory Material

Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.

A.1.1.1 Methods for conducting remote inspections and tests can range from handheld devices to other means, including, but not limited to, unmanned aircraft systems (drones), to achieve the stated objectives of the authority having jurisdiction. Requirements for implementation of the procedures, methods, and documentation required by this standard are to be developed by the authority having jurisdiction to best respond to their specific needs. Inspections and tests of buildings, structures, systems, and premises, including underground spaces and aerial areas, can include electrical, HVAC, and fire protection, among other disciplines.

Tests can be either observed remotely (the same as an inspection) while they are happening or recorded for review by the authority having jurisdiction.

Automated inspections and tests are permitted by many of the installation standards for fire protection systems, including NFPA 13, NFPA 14, NFPA 20, NFPA 25, and *NFPA 72*. If approved for use by the authority having jurisdiction, periodic inspections and tests such as those required for water-based fire protection systems, fire alarm systems, and other mechanical and electrical systems can be performed automatically and the results recorded for review.

Distance monitoring involves installing electronic devices, meters, or equipment to observe conditions in mechanical and electrical systems that can be constantly reported to a dashboard or similar display or requested on an as needed basis.

A.1.1.2 An NFPA standard, the main text of which contains only mandatory provisions using the word "shall" to indicate requirements, is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions of a standard are not considered a part of the requirements of a standard and are, therefore, located in an appendix, annex, footnote, informational note, or other means as permitted in the NFPA manuals of style.

A.1.2 The intent of remote inspection and testing, automated inspection and testing, and distance monitoring methods is to ensure that a facility, structure, system, site, feature, construction, or process satisfies the applicable project requirements, design, and applicable governing laws, codes, regulations, or standards. Additionally, it is the intent of this standard that these methods should supplement and facilitate inspections and tests, automated inspection and testing, and distance monitoring.

A.1.3 This standard is written to be compatible with the requirements of any jurisdiction. Requirements can be modified by any jurisdiction based on the needs, technology, and conditions.

A.1.3.1 It is the intent of this section to allow several types of inspections and tests to be conducted, including, but not limited to, routine, scheduled, and special inspections or tests. However, determining the types of inspections and tests allowed, whether they are performed in person or through automated inspection and testing methods, should be at the discretion of the authority having jurisdiction. Distance monitoring is usually performed by the owner or their representative but can also benefit the authority having jurisdiction especially for high-risk facilities where it is important to know the status of protection equipment and systems at all times.

A.1.3.2 The authority having jurisdiction should take into consideration specific situations and/or conditions that exist at the site when determining the feasibility of remote inspections and testing, automated inspection and testing, and distance monitoring. Some examples include the following:

(1) Complex systems. The inspection or test of some complex systems might require more detail than can easily be obtained using a remote inspection or test.
(2) Poor conditions (due to low lighting, low connectivity). Certain conditions can lend themselves to having an inspection or test witnessed remotely or make it difficult to use remote inspection and testing technologies. For instance, an inspection or test required in an area with no or low lighting could use a drone or a robot equipped with its own lighting source. Other conditions could make using certain remote inspection and testing technologies prohibitive, such as in areas with low connectivity where a live inspection or test using an internet connection is not possible.
(3) Access to work. Not being able to access a work area due to height, safety concerns, the inability to shut down a process or a piece of equipment, energized equipment, and so forth, are examples of situations where remote inspections and tests could be performed using a drone, a robot, a fixed transmitting device such as a security camera, a portable transmitting device such as an industrial borescope, and so forth.
(4) Availability/understanding of technology. The authority having jurisdiction should decide if the remote inspection and testing, automated inspection and testing, and distance monitoring technology are understood well enough by both parties to be effective in obtaining the information needed.
(5) Confined/hazardous locations that need to be physically entered. Remote inspections and tests, automated inspections and tests, and distance monitoring could be effective in protecting personnel from confined or hazardous locations. However, the authority having jurisdiction should also ensure that the setup, execution, or completion of a remote inspection or test does not present additional hazards to inspection or test personnel.
(6) Mobility or other physical limitations of the inspector.
(7) Ability of the automated inspection and testing devices and equipment to comply with the applicable NFPA standard.
(8) The need to have live data transmitted to a specific location for distance monitoring of systems or equipment to ensure their readiness in the event of a fire.
(9) Any other conditions that are not conducive for a personal inspection or test such as, but not limited to, the following:
    (a) Private property concerns
    (b) Legality of methods employed, such as entering controlled airspace or environmentally sensitive areas
    (c) Excessive travel time to the site
    (d) Cost concerns
    (e) Exposure to environmental health and safety concerns

A.1.3.3 There is a hierarchy between ordinances and adopted codes and standards that must be considered and followed. The authority having jurisdiction should be consulted where there are conflicting requirements to determine which one takes precedence over the other.

A.1.7.1 See A.3.2.2 for an explanation of how the term *authority having jurisdiction (AHJ)* is used in a broad sense to include jurisdictions and approval agencies that could be involved in approving the provisions of this standard.

A.1.7.4 An authority having jurisdiction can perform the remote inspection or test using their own resources, including qualified personnel and approved methods and devices, as long as they meet the requirements of this standard. However, they can also allow or require a third-party entity to perform the remote inspection or test.

A.3.2.1 Approved. The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the "authority having jurisdiction" may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The "authority having jurisdiction" may also refer to the listings or labeling practices of an organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

A.3.2.2 Authority Having Jurisdiction (AHJ). The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA standards in a broad manner because jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

A.3.2.4 Listed. The means for identifying listed equipment may vary for each organization concerned with product evaluation; some organizations do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.

A.3.3.2 Building Systems. Building systems include all electrical power services; communication and security services; electrical control systems; HVAC systems; water, steam, wastewater, and drainpipes and services; fire suppression systems including water-based and non-water-based systems; oil and piped hydraulic and pneumatic systems. [**914,** 2023]

A.3.3.3 Buildings. The term *building* is to be understood as if followed by the words "or portions thereof." Each portion of a building that is separated from other portions by a fire wall is considered to be a separate building.

A.3.3.8 Data. Data can include photographic images, video, audio recordings, copies of reports, and other associated items.

A.3.3.9 Data Device. Data devices are capable of collecting images or other forms of data and storing the data so it can be transferred to an entity at a later time or are capable of transmitting data in real time to an entity through various means. Examples include cameras, video recorders, cell phones, and other smart devices.

A.3.3.14 Inspection. An inspection is a means to determine compliance. Examples of this include conformity to a specification or design or a process to ensure expected performance. This can take many forms. The inspection should match the approved design and installation documents, or witness a test to prove compliance with acceptance criteria. In all of these cases confirmation is required, which can either be in person by the AHJ or through the use of technologies that can provide the same result or better than an in-person inspection.

A.3.3.19 Remote Inspection. The following are examples of remote inspections:

(1) Evaluation of objects, materials, or construction from a distance or off-site location
(2) Aerial inspections
(3) Off-site witnessing of fire system testing

A.4.1.2 Sensitive or classified subjects that the property owner should protect include, but are not limited to, personal information of patients protected by HIPAA, proprietary corporate data, and so forth.

A.4.1.3 The property owner should assume that all remote inspections and tests will consist of video, image, and audio recording, and it might be necessary for the property owner to notify the building occupants prior to a remote inspection or test to prevent unauthorized photography and sensitive information from being recorded.

A.4.3 The entity performing the remote inspection or test can be either the property owner, the contractor of work, or a third party, depending on the work being performed.

A.4.3.1 Those conducting remote inspections and tests should always assume that there is a *property owner* or designated representative. One should never assume that it is permissible to enter vacant land, public property, remote areas, or airspaces without authorization.

A.4.3.2.3 It is the intention of the committee that the written inspection or test plan augments inspection or test documentation required by other nationally recognized codes and standards. The committee also recognizes that not every remote inspection or test will require a narrative description of the anticipated remote inspection or test process. For example, a written inspection or test plan for the remote inspection or test of a hot water heater is most likely not necessary as the inspection or test of the equipment is self-explanatory. Ultimately, the AHJ will make the determination as to whether the remote inspection or test requires a written plan or not.

A.4.3.2.3.2 Administrative information should include the identification of participants, the type of inspection or test, the reason for the inspection or test, remote inspection or test method to be used, the exact location of the inspection or test, and the proposed date and time of the remote inspection or test.

A.4.3.2.3.3 A narrative description of the inspection or test process should include the preparation; equipment to be used; qualifications and licenses required; hazards identification and how the hazards will be mitigated; the inspection or test execution timeline, including major steps and phases of the inspection or test; general description of data-gathering method; and how the inspection or test will be ended and the property secured.

A.4.4.1 The following criteria examples are to assist the AHJ in determining the acceptable remote inspection or test criteria for their jurisdiction:

(1) Suitability of the inspection or test, which could include the expected success of the inspection or test; the available site and task safety available, or lack thereof; and size/scope of the work to be inspected
(2) Limitations, which could include weather, trained personnel, privacy constraints, cellular/WIFI connections, and any constraints that will affect safety, health, and the environment
(3) Acceptance criteria, which could include upper and lower limits of data results in accordance with codes, standards, or best practices
(4) Inspection or test requirements, which could include supervision, inspector qualifications, insurance, contracts, and other risk management requirements
(5) Documentation, which could include the allowance or disallowance of electronic reports, photography, and video
(6) Technology, including the allowable standard for remote testing equipment and systems
(7) Submission format, including electronic data, cloud storage, handwritten reports, and paper reporting
(8) Scheduling requirements, including times, dates, and weather conditions
(9) Dissemination of modifications and current practices to the AHJ required criteria

A.5.1 Alternatively, the contractor of work, or other approved entity, could be designated to provide this information. Other geolocation technologies, such as GPS or Bluetooth, can be considered to help validate the location.

A.5.2.1 The address should be the physical address where the inspection or test is to take place; for example, 1 Batterymarch Park, Quincy, MA 02169. If no address is provided, the use of other approved markers, such as parcel ID, plot plan designations, GIS coordinates, or other geolocation technologies could be considered.

A.5.2.2 Because the type of structure could vary, please see NFPA 220 for applicable building types.

A.5.2.3 The areas within a structure might include a floor and specific location, for example, a second floor bathroom. This area should be able to be verified via any submitted materials.

A.5.3 The type of occupancy could be a one- or two-family dwelling, an apartment, or a health care facility, among others. See NFPA *101*, *NFPA 5000*, or applicable life safety or building codes for occupancy types.

A.5.5.1 Unless modified by the AHJ, the format to record the date should be month/day/year. For example, 10/1/2019 would indicate October 1st of the year 2019.

A.5.5.2 Unless modified by the AHJ, the format to record time should be hours/minutes/meridiem. For example, 9:05 a.m. would indicate nine hours, five minutes, ante meridiem, and 9:05 p.m. would indicate nine hours, five minutes, post meridiem.

A.6.1.1 The use of data collection/transmission devices could be considered integral to performing remote inspections and tests. The entity performing the remote inspection or test should also be familiar with the data collection device that has been selected.

The technical committee recognizes the ever-changing technological landscape. The intent of this section is to allow for the consideration of other data collection/transmission devices as appropriate, as they become available and are approved by the AHJ.

Authorities such as the Federal Communications Commission (FCC) often regulate many types of devices.

A.6.1.2 See Table A.6.1.2 for guidance on both devices and formats.

A.6.2 A wireless device is one that is connected to a wireless network, either directly or from a wireless connection, which might or might not be connected to the internet.

A.6.2.1(4) This could include laptops or similar devices.

A.6.2.1(5)(a) Wireless Local Area Networks (WLAN) are wireless networks that use radio waves. The backbone network usually uses cables, with one or more wireless access points connecting the wireless users to the wired network. The range of a WLAN can be anywhere from a single room to an entire campus.

A.6.2.1(5)(b) Wireless Personal Area Networks (WPAN) are short-range networks that use Bluetooth technology. They are commonly used to interconnect compatible devices near a central location, such as a desk. A WPAN has a typical range of about 30 ft (9.1 m). It is a wireless-type device that uses either battery or line voltage. A digital device is digitized to transmit a signal and modulated to be sent out wireless.

A.6.2.1(5)(c) Wireless Wide Area Networks (WWAN) are created through the use of mobile phone signals typically provided and maintained by specific mobile phone (cellular) service providers. WWANs can provide a way to stay connected even when away from other forms of network access.

A.6.2.2 Authorities such as the Federal Communications Commission (FCC) often regulate many types of devices. Also, see Table A.6.1.2 for further information.

A.6.2.3 Examples of other wireless devices would be certain smart watches or glasses.

A.6.3 A digital device is one that records or transmits in a digital format via a wireless, ethernet, hard-wired, or dial-up connection. Digital devices might or might not be connected to a network or the internet.

A.6.3.3 An example of a different type of digital device not mentioned might be glasses that allow connection to a digital device or cellular network.

A.6.4 A nondigital device is one that uses physical media to transmit or record in a predetermined format that is not capable of being connected to a network.

Table A.6.1.2 Data Collection Capabilities by Device

Type	Live Video	Recorded Video	Live Audio (In Person)	Live Audio (Data Collection/ Transmission Device)	Recorded Audio	Recorded Digital Photography	Recorded Nondigital Photography
Cellular telephones/ smartphones	X	X	X	X	X	X	N/A
Satellite telephones	n/a	n/a	X	X	n/a	n/a	n/a
Cellular tablets/ pads	X	X	X	X	X	X	n/a
Wireless/network-connected computers	X	X	X	X	X	X	n/a
Digital telephones	n/a	n/a	X	X	n/a	n/a	n/a
Digital audio recorders	n/a	n/a	n/a	X	X	n/a	n/a
Digital cameras	n/a	n/a	n/a	n/a	n/a	X	n/a
Digital video recorders	n/a	X	n/a	n/a	n/a	n/a	n/a
Computers	X	X	n/a	X	X	X	n/a
Analog telephones	n/a	n/a	X	X	n/a	n/a	n/a
Audio cassette recorders	n/a	n/a	n/a	n/a	n/a	n/a	X
Radios	n/a	n/a	X	n/a	n/a	n/a	n/a
Film cameras	n/a	n/a	n/a	n/a	n/a	n/a	X
Video cassette recorders	n/a	X	n/a	n/a	n/a	n/a	n/a
Wave detection technologies	n/a	n/a	n/a	n/a	n/a	n/a	X
sUAS	X	X	X	X	X	X	n/a

X: Capable.
N/A: Not applicable.

A.6.4.1(3) Radios are meant to include two-way radio communication devices that can span large distances.

A.6.4.1(6) These could include radar, sonar, laser, x-ray, lidar, or other similar technologies.

A.6.5 A vehicle, for the purposes of this standard, is an apparatus that can transport humans, or be directly controlled by humans, for the purposes of conducting a remote inspection or test.

A.6.5.1.1 An example of a nonaerial manned vehicle could include, but not be limited to, an underwater sled. These devices provide access to areas within the structure that normally might or might not be accessible otherwise.

A.6.5.1.2 An example of a nonaerial unmanned vehicle could include, but not be limited to, a motorized robotic apparatus used to examine attics, crawl spaces, piping systems, tunnels, or other inaccessible areas.

A.6.5.1.3 An example of another nonaerial unmanned vehicle could include, but not be limited to, a motorized lift apparatus used to examine exterior building components and facades. These devices are not normally accessible. Additionally, while the lift itself is aerial, the base remains on ground level.

A.6.5.2.1 An example of an aerial manned vehicle could include, but not be limited to, an airplane or helicopter used to survey a large site. These devices provide access to areas above a site or a structure that are not normally accessible otherwise.

A.6.5.2.2 The most common example of an unmanned aerial vehicle are drones. While not limited solely to drones, these devices provide access to areas above a site or structure that are not normally accessible. Drones typically provide a more cost-

effective and substantive aerial examination than traditional aircraft.

A.6.5.2.2.1 See 3.3.22 for the definition of unmanned aircraft.

A.6.5.2.2.1.1 For example, the AHJ includes the aviation regulatory authority having jurisdiction. In the United States, this is the FAA. Internationally, this is the applicable national civil aviation authority. [**2400:**A.1.5]

A.6.5.2.2.1.2 Small unmanned aircraft means an unmanned aircraft weighing less than 55 lb on takeoff, including everything that is on board or otherwise attached to the aircraft. The weight limit defining a small unmanned aircraft will vary from country to country and quite often will be determined by the applicable aviation authority. The current definition is based on regulations in the United States developed by the Federal Aviation Administration (FAA). 14 CFR Part 107, often referred to as "the Small Unmanned Aircraft Rule — Part 107" establishes the less than 55-lb (25 kg) weight limit used in this standard for small unmanned aircraft. Public safety entities will need to apply the applicable weight limit, if any, based on the AHJ. [**2400:**A.1.3.2]

A.6.5.2.2.1.3 This should be a person who has been found to be properly qualified to exercise the privileges of a remote pilot and has the final authority and responsibility for the operation and safety of sUAS operation as determined by the AHJ. See NFPA 2400 for further details.

A.6.5.2.2.1.4 A public safety entity is one that has a mission to protect life, property, or the environment or any combination of these. An example of a public safety operation could be an AHJ conducting an inspection or test of a bridge.

A.6.5.2.2.1.5 See A.6.5.2.2.1.2. Additionally, see Table A.6.1.2 for further information.

A.6.6 The technical committee recognizes the ever-changing technological landscape. The intent of this section is to allow for the consideration of other data collection/transmission devices as appropriate and as they become available and are subject to approval by the AHJ.

A.6.6.1 The technical committee recognizes the ever-changing technological landscape. The intent of this section is to allow for the consideration of other vehicles as appropriate and as they become available and are subject to approval by the AHJ.

A.6.6.2 Examples of data-sensing devices include, but are not limited to, the following:

(1) Pressure transducers
(2) Temperature sensors
(3) Vibration sensors
(4) Motion detectors
(5) Flow sensors

A.7.1 The use of specific data collection formats is an integral consideration when determining applications for remote inspections and tests. Only formats that are approved by the AHJ should be used. The entity performing the remote inspection or test should also be familiar with the data collection/transmission device that has been selected. Finally, the AHJ should provide consideration for nondigital formats, where appropriate.

A.7.1.1 The sender is most likely the entity performing the remote inspection or test but might be others as approved.

A.7.1.2 The receiver is most likely the AHJ but might be others as approved.

A.7.2.1(1) These signals would generally be from primarily a wireless device. However, a digital collection device could be used.

A.7.2.1.1(1) Loss of video and/or audio signals can negatively impact the effectiveness of remote inspections and tests. The AHJ will need to determine whether any loss of signal impacts the remote inspection or test.

A.7.2.1.1(2) Adequate light levels make it possible for the receiver to view the intended area being shown. Great care needs to be taken to provide adequate lighting, which should not be too dim or too bright.

A.7.2.1.1(3) The quality of video needs to be acceptable to the receiver. While video minimum formats change based on signal strength, location, and technological advancement, it is important to provide the highest quality video that the sender's data collection/transmission device will support. Unless approved by the AHJ live video should not be edited.

A.7.2.1.1(4) The quality of audio needs to be acceptable to the receiver. While audio minimum formats change based on signal strength, location, and technological advancement, it is important to provide the highest quality audio that the sender's data collection/transmission device will support.

A.7.2.2(1) These signals could be from a wireless device, digital device, or a nondigital device. Generally, a wireless device would provide the video in a digital format. A nondigital device would provide the video via a manual means, such as a tape or some type of magnetic media. Finally, a digital device can provide video by either means.

A.7.2.2.1(1) Adequate light levels make it possible for the receiver to view the intended area being shown. Great care needs to be taken to provide approved exposure.

A.7.2.2.1(2) The quality of video needs to be acceptable to the receiver. While video minimum formats change based on signal strength, location, and technological advancement, it is important to provide the highest quality video that the sender's data collection/transmission device will support.

A.7.2.2.1(3) The quality of audio needs to be acceptable to the receiver. While audio minimum formats change based on signal strength, location, and technological advancement, it is important to provide the highest quality audio that the sender's data collection/transmission device will support.

A.7.2.2.1(4) The AHJ will need to be consulted on the type of recorded video to be presented, whether it is original unedited recorded video or edited for quality.

A.7.2.2.2 Manual means of supplying video can include, but not be limited to, physical delivery, mail delivery service, or courier.

A.7.3.1.1 During remote inspections and tests, it might be necessary to have in-person conversations. An example of this is an entity performing the remote inspection or test who is meeting with an AHJ on site. This AHJ, in turn, might be using a phone to relay information to another AHJ at a remote location.