Meeting of the Technical Correlating Committee on Professional Qualifications

TCC ROP NFPA 1002, 1021, 1026, 1031 and 1033

April 10, 2012 (PLEASE NOTE DATE CHANGE)
Conference Call Only 877-320-2367 PIN 4892490
No Live Meeting
1:00PM ET

Agenda

1. Call to Order – Chair Bill Peterson

2. Introduction of Members and Guests

3. Chair’s Remarks and Purpose of Meeting

4. Review of minutes from previous meeting (February 2012)

5. Documents
   a. A2013 – ROP
      1. NFPA 1002 Proposal Closing Date (8/26/11)
      2. NFPA 1021
      3. NFPA 1026
      4. NFPA 1031
      5. NFPA 1033

6. Old Business
   a. TCC Workshop updates

7. New Business
   a. TCC and FESHE - Mike McCabe
   b. NFPA 1061 - ROC Update
   c. NFPA 1521 - First Draft Meeting and SOP
   d. NFPA 1005 - First Draft Meeting

8. Adjourn at the Close of Business

   There will be Conference Call/Live Meeting capabilities at the June Las Vegas meeting
Members Present:
*Bill Peterson, Chair
*Alan Joos
*Billie Shelton
*Bryant Stiles
*Doug Forsman
*R. Kirk Hankins
Ernie Grant
Jim Stumpf
Tom McGowan, NFPA Staff

*Ron Hopkins for Phil Stittleburg
Mike Wieder
Mike Brackin
Ed Hawthorne
Richard Carlson
Larry Preston
Jacklyn Kilby-Richards
F. Pat Marlatt

Guest:
Larry Pigg for Jim Crawford
Steve Sawyer, NFPA Staff

*TCC vote eligible

Meeting called to order by TCC Chair Bill Peterson at 8:00 AM, CST on Wednesday, February 01, 2012

Members on site and by phone were introduced.

Minutes of the TCC on Professional Qualifications Meeting of December 7, 2011 were approved as presented.

NFPA Staff Liaison Tom McGowan provided a briefing to the TCC on the current status of all Pro-Qual Documents.

A review of all Pro-Qual Documents Scopes was conducted. A motion was made and passed to recommend the following: (see attached from Tom McGowan).

A proposal to realign the schedule for Pro-Qual Documents was presented. Staff will forward three proposed drafts for the schedule. Members are asked to respond to the proposals.

The TCC Standard Operating Procedures were presented and reviewed. A task group was established to review and propose a draft procedures document, members include: Bill Peterson, Jacklyn Kilby-Richards, Ron Hopkins, Doug Forsman, and Tom McGowan, Staff.
The task and group on Pro-Qual Definitions reported to the TCC. Motion made and passed to implement the Report of the Task Group and if a TC wishes to use an alternative definition this request shall be made to the TCC.

A review of a Subject Matter Matrix of all Pro Qual Documents was presented. A Task Group was established to review and propose a template for the front end information, back end information and appendices of all Pro Qual Documents. Members are: Mike Wieder, R. Kirk Hankins, Bill Peterson, Ernie Grant, and Tom McGowan, Staff.

A discussion on TCC Membership was held. Staff has asked for input on National Organizations that may have interest in having an individual represent them on the TCC or other individuals that may be interested in serving as a Principle Member of the TCC.

The Subject Matter Task Group was requested to include a draft of a Recurrent Training Language for all Pro-Qual Documents in their report.

Meeting Adjourned at 4:20 PM CST, on Wednesday, February 01, 2012.

Meeting reconvened at 10:00 AM CST, on Thursday, February 02, 2012

Both Task Groups gave a brief report of their short meetings earlier today. Complete reports will be provided at the TCC Meeting in June 2012.


An up-date to the NFA Professional Development correlation between the EFO and Pro-Qual Documents was discussed. The new document will be forwarded via e-mail by NFPA Staff Liaison Tom McGowan to the TCC membership.

Next meeting of the TCC will be a Conference Call on Wednesday, April 11, 2012 at 1:00 PM EDT.

Next meeting in person for ROC 1006 & 1061, and the TCC Workshop will be Saturday June 9, 2012 in Las Vegas, NV, at 8:00 AM PDT. (Room location TBD)

Meeting Adjourned at 11:00 AM CST

Respectfully Submitted,

F. Patrick Marlatt
Eliminate the Chapter 5 requirement for the Pumper Driver/Operator to be certified Firefighter I or establish a waiver option for this requirement.

Per Chapter 5 of the standard, the driver/operator of a pumper must be Firefighter I, as a prerequisite to becoming a certified driver/operator of this apparatus. In my opinion, this requirement is overly restrictive and has unintended negative consequences for volunteer or “combo” fire departments where the number of Firefighter I and II personnel is a minority in the department. My opinion, which should be verified, is that Firefighter I and II personnel are in the minority in most small departments (especially the small town and rural departments) and a large number of US fire departments fall into this category.

There are several reasons why the “Firefighter I requirement” should be eliminated or waived in departments where Firefighter I and II personnel are in the minority:

• A well-trained pumper driver/operator who is NOT a Firefighter I or II resource makes the trained firefighter resources available to fight the structure fire. (If your department of 15 firefighters has only 4 firefighters certified at level I or II, you want them working on the structure fire, not operating the pumper.)

• Pumper operation skills that are part of the Firefighter I curriculum can also be taught as part of Pumper driver/operator training. (These pump operation skills are operations such as pump controls and instruments, hydrant procedures, and hose and nozzle management.)

• There are Pumper skills that are not part of the Firefighter I curriculum, such as proper apparatus positioning, drafting, relay pumping, and pre-plan operations that have to be taught as part of Pumper driver/operator training.

• In the rural communities, where it is terribly difficult to get enough volunteers to make a fire department viable, the Pumper driver/operator can be a retired firefighter, elderly, with some physical limitations. This driver/operator would never be called on to suit up and attack a burning structure. (The current requirement would eliminate these resources from the small departments.)

• Fire departments that cannot or do not conform to this requirement will not be eligible for grant programs that require conformance to NFPA 1002. (These are the departments that most desperately need grant assistance.)

The TC believes that the knowledge and skills found under NFPA 1001, Standard for Fire Fighter Professional Qualifications, are necessary for the position of driver/operator pumper.

Committee Meeting Action: Reject
Committee Statement: The TC believes that the knowledge and skills found under NFPA 1001, Standard for Fire Fighter Professional Qualifications, are necessary for the position of driver/operator pumper.
Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

Comment on Affirmative: TURNO, D.: I would agree with the submitter that there are times and departments where personnel who operate or can operate the pumper may not be FF I. However, currently in the standards this issues not been fully addressed and due to our current times and shortage of volunteers it may need to be. This submission has far reaching impacts other then just this standard. (1500, 1710 & 1720 etc) I suggest this be resubmitted with suggested text and a review of other standards where this issue may have impacts. A pump operator may have set through the training and be qualified but not certified as a FFI.
Revise text to read as follows:

Review and rewrite the discussions of the water shuttle. Have the revision reviewed by folks that have significant experience with water shuttle.

The annexes discuss a water shuttle operations and describe a 2 dump tank configuration, one tank for a pumper(s) to draft from and one tank to into which the water tenders dump their loads. I think this is an inefficient approach to a water shuttle. It requires a separate activity to pump water out of one tank into another, or the pumper has to break its draft and re-establish draft in the second tank. In my experience (which is limited to mountainous terrain), one dump tank is sufficient for most structure fires. A relay pumper drafts from one side or the back of the drop tank. The water shuttle tenders drop their loads at the front or other side of the drop tank. For an extremely large fire, two drop tanks can be set up, back to back, and interconnected by their drains or a suction device. One or more relay pumpers draft from the back tank; the tankers dump into the front tank. The suction-fed connection between the two tanks feeds the pumpers. The goal in either dump tank configuration is to keep the tank(s) as full as possible. Tankers can be staged to await their turns to dump their loads.

Committee Meeting Action: Reject
Committee Statement: No recommended language was offered by author to change the annex material. Annex material is supplemental information and does not restrict other procedures from being developed and used.

Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

Adopt the preferred definition from the NFPA Glossary of Terms as follows:

Fire Apparatus. A fire department emergency vehicle used for rescue, fire suppression, or other specialized functions.

Fire Apparatus. A vehicle designed to be used under emergency conditions to transport personnel and equipment, and to support the suppression of fires and mitigation of other hazardous situations.

This definition, from 1901, is the preferred definition from the Glossary of Terms. Changing to the preferred definition complies with the Glossary of Terms Project.

Your technical committee has the following options:

a) Adopt the preferred definition
b) Modify the term to make it unique
c) Request that the Standards Council reassign responsibility for the term
d) Request that the standards council authorize a second preferred definition

Committee Meeting Action: Accept
Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.
9.2.3 Produce a fire stream, given a rate of discharge and water supplied from the sources specified in the following list, so that the pump is engaged, the turrets are deployed, the agent is delivered to the intended target at the correct rate, and the apparatus is continuously monitored for potential problems:

(1) The internal tank
(2) Pressurized source
(3) Static source: Static Source in fire apparatus equipped with drafting capabilities

**Substantiation:** Revised text to include capabilities of ARFF apparatus. Not all types of ARFF apparatus. Not all types of ARFF apparatus are equipped with primer pumps, nor are all ARFF vehicles equipped with structural-type pump panels. These types of vehicles are designed mostly for pump and roll operations, with limited pump operational capability. Therefore, some potential ARFF operators may not be able to meet this JPR because they do not have the capability of meeting it. In addition, drafting is not a required pump capability in NFPA 414: Standard for Aircraft Rescue and Fire-Fighting Vehicles, so if it is not required to be a capability on ARFF vehicles, ARFF driver/operators should not be required to perform this skill, unless their apparatus is equipped with such a feature.

**Committee Meeting Action:** Accept
**Number Eligible to Vote:** 28
**Ballot Results:** Affirmative: 21
**Ballot Not Returned:** 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

---

**Submitter:** Glossary of Terms Technical Advisory Committee,
**Recommendation:**
**Substantiation:**
Report on Proposals – June 2013

1002-2  Log #CP1  PQU-FFQ
(2.2)  Final Action: Accept

Submitter: Technical Committee on Fire Fighter Professional Qualifications,

Recommendation: Revise text to read as follows:

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


NFPA 1901, Standard for Automotive Fire Apparatus, 2009 edition

Substantiation: Updating reference materials currency.

Committee Meeting Action: Accept

Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

1002-3  Log #CP2  PQU-FFQ
(2.4)  Final Action: Accept

Submitter: Technical Committee on Fire Fighter Professional Qualifications,

Recommendation: Revised text to read as follows:

2.4 References for Extracts in Mandatory Sections.


Substantiation: Updating reference materials currency.

Committee Meeting Action: Accept

Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

Printed on 2/23/2012
Operate a fire department vehicle, given a vehicle and a predetermined route on a public way that incorporates the maneuvers and features, specified in the following list, that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable state and local laws, and departmental rules and regulations, and the requirements of NFPA 1500, Section 4.2:

- Four left turns and four right turns
- A straight section of urban business street or a two-lane rural road at least 1.6 km (1 mile) in length
- One through-intersection and two intersections where a stop has to be made
- One railroad crossing
- One curve, either left or right
- A section of limited-access highway that includes a conventional ramp entrance and exit and a section of road long enough to allow two lane changes
- A downgrade steep enough and long enough to require down-shifting and braking
- An upgrade steep enough and long enough to require gear changing to maintain speed
- One underpass or a low clearance or bridge

The committee recognizes that each of these situations might not exist within the AHJ. The committee considers these driving situations essential to driver/operator skills.

The committee recognizes that each of these situations may not exist in all areas. When possible all skills are encouraged to be accomplished.

| Submitter: Technical Committee on Fire Fighter Professional Qualifications, |
| Recommendation: The committee’s intent is to have the following maneuvers and features accomplished by the driver/operator. The committee recognizes that each of these situations might not exist within the AHJ. The committee considers these driving situations essential to driver/operator skills. |
| (4.3.1) | Final Action: Accept |
| 1002-5 Log #CP3 PQU-FFQ | |
| 1002-18 Log #CP4 PQU-FFQ | |
Submitter: Technical Committee on Fire Fighter Professional Qualifications,
Recommendation: Revise text to read as follows:
8.1.2* Operate a wildland fire apparatus, given a predetermined route off of a public way that incorporates the maneuvers and features specified in the following list that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable departmental rules and regulations, the requirements of NFPA 1500, Section 6.2, and the design limitations of the vehicle:

Substantiation: The standard document is referenced in Chapter 2. It is redundant information.
Committee Meeting Action: Accept
Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7  Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

Submitter: Technical Committee on Fire Fighter Professional Qualifications,
Recommendation: Revise text to read as follows:
8.1.2* Operate a wildland fire apparatus, given a predetermined route off of a public way that incorporates the maneuvers and features specified in the following list that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable departmental rules and regulations, the requirements of NFPA 1500, Section 6.2, and the design limitations of the vehicle:

Substantiation: The standard document is referenced in Chapter 2. It is redundant information.
Committee Meeting Action: Accept
Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7  Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

Submitter: Technical Committee on Fire Fighter Professional Qualifications,
Recommendation: Revise text to read as follows:
8.2.1 Produce effective fire streams, utilizing given the sources specified in the following list, so that the pump is engaged, all pressure-control and vehicle safety devices are set, the rated flow of the nozzle is achieved, and the apparatus is continuously monitored for potential problems:

Substantiation: Revised to incorporate JPR format.
Committee Meeting Action: Accept
Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7  Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.
<table>
<thead>
<tr>
<th>Log #CP8</th>
<th>Final Action: Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>(9.1.2)</td>
<td></td>
</tr>
</tbody>
</table>

**Submitter:** Technical Committee on Fire Fighter Professional Qualifications,

**Recommendation:** Revise text to read as follows:

9.1.2 Operate an ARFF vehicle, given a predetermined route on an airport that includes the maneuvers listed in 4.3.1, and operation in all aircraft movement areas, so that the vehicle is operated in compliance with all applicable federal, state/provincial, and local laws, departmental rules and regulations, and the requirements of NFPA 1500, Section 6.2.

**Substantiation:** The standard document is referenced in Chapter 2. It is redundant information.

**Committee Meeting Action:** Accept

**Number Eligible to Vote:** 28

**Ballot Results:** Affirmative: 21

**Ballot Not Returned:** 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

<table>
<thead>
<tr>
<th>Log #CP9</th>
<th>Final Action: Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>(9.3.1)</td>
<td></td>
</tr>
</tbody>
</table>

**Submitter:** Technical Committee on Fire Fighter Professional Qualifications,

**Recommendation:** Revise text to read as follows:

9.1.3* Operate an ARFF apparatus, given a predetermined route, off of an improved surface that incorporates the maneuvers and features specified in the following list that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable departmental rules and regulations, the requirements of NFPA 1500, Section 6.2, and the design limitations of the vehicle:

**Substantiation:** The standard document is referenced in Chapter 2. It is redundant information.

**Committee Meeting Action:** Accept

**Number Eligible to Vote:** 28

**Ballot Results:** Affirmative: 21

**Ballot Not Returned:** 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.
Technical Committee on Fire Fighter Professional Qualifications,

Revise text to read as follows:

4.3.1(A) **Requisite Knowledge.** The importance of donning passenger restraint devices and ensuring crew safety; the common causes of emergency vehicle accidents and the recognition that drivers of emergency response vehicles are responsible for the safe and prudent operation of the vehicle under all conditions; the effects on vehicle control of liquid surge, braking reaction time, and load factors; effects of high center of gravity on roll-over potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, and gear patterns; negotiating intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.

**Substantiation:** Firefighter casualties occur every year as a result of emergency apparatus accidents. Many other standards have been improved to promote the use of passenger restraint devices and their inclusion in emergency apparatus. The driver/operator standard should be appropriately reinforced to promote the importance of the use of these devices. Excessive speeds is often cited in emergency vehicle accidents and the standard should reinforce that driver/operators should always operate the vehicle at a safe speed given the conditions, urgency, applicable state/local laws, etc.

**Committee Meeting Action:** Accept

**Number Eligible to Vote:** 28

**Ballot Results:** Affirmative: 21

**Ballot Not Returned:** 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

---

Technical Committee on Fire Fighter Professional Qualifications,

Revise text to read as follows:

9.2.1 Maneuver and position an ARFF vehicle, given an incident location and description that involves the largest aircraft that routinely uses the airport, so that the vehicle is positioned for correct operation at each operational position for the aircraft.

(A) **Requisite Knowledge.** Vehicle positioning for firefighting and rescue operations; tower light signals, aircraft recognition, airport markings capabilities and limitations of turret devices related to reach; and effects of topography, ground, and weather conditions on agent application, distribution rates, and density.

**Substantiation:** To make the items consistent and better placement within the requisite knowledge of the appropriate JPR. [Refer to 1002-17 (Log #CP12)].

**Committee Meeting Action:** Accept

**Number Eligible to Vote:** 28

**Ballot Results:** Affirmative: 21

**Ballot Not Returned:** 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.
1002-14  Log #CP12  PQU-FFQ

(9.2.2)  Final Action: Accept

Submitter: Technical Committee on Fire Fighter Professional Qualifications,

Recommendation: Revise text to read as follows:

9.2.2 Produce a fire stream while the vehicle is in both forward and reverse power modulation, given a discharge rate and intended target, so that the pump is engaged, the turrets are deployed, the agent is delivered to the intended target at the correct rate, and the apparatus is moved and continuously monitored for potential problems.

(A) Requisite Knowledge. Principles of agent management and application, effects of terrain and wind on agent application, turret capabilities and limitations, tower light signals, airport markings, aircraft recognition, aircraft danger areas, theoretical critical fire area and practical critical fire area, aircraft entry and egress points, and correct apparatus placement.

Substantiation: To make the items consistent and better placement within the requisite knowledge of the appropriate JPR. [Refer to 1002-16 (Log #CP11)].

Committee Meeting Action: Accept
Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

1002-7  Log #CP13  PQU-FFQ

(4.3.6(A))  Final Action: Accept

Submitter: Technical Committee on Fire Fighter Professional Qualifications,

Recommendation: Revise text to read as follows:

4.3.6(A) Requisite Knowledge. The importance of donning passenger restraint devices and ensuring crew safety; the common causes of emergency vehicle accidents and the recognition that drivers of emergency response vehicles are responsible for the safe and prudent operation of the vehicle under all conditions; the effects on vehicle control of liquid surge, braking reaction time, and load factors; effects of high center of gravity on roll-over potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, and gear patterns; negotiating intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.

Substantiation: Firefighter casualties occur every year as a result of emergency apparatus accidents. Many other standards have been improved to promote the use of passenger restraint devices and their inclusion in emergency apparatus. The driver/operator standard should be appropriately reinforced to promote the importance of the use of these devices. Excessive speeds is often cited in emergency vehicle accidents and the standard should reinforce that driver/operators should always operate the vehicle at a safe speed given the conditions, urgency, applicable state/local laws, etc.

Committee Meeting Action: Accept
Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.
Submitter: Technical Committee on Fire Fighter Professional Qualifications,  
Recommendation: Delete current text of A.8.1.2 and add new text as follows:  
The committee's intent is to have the following maneuvers and features accomplished by the driver/operator. The committee recognizes that each of these situations might not exist within the AHJ. The committee considers these driving situations essential to driver/operator skills.  
(1) Loose or wet soil  
(2) Steep grades (30 percent fore and aft)  
(3) Limited sight distance  
(4) Blind curve  
(5) Vehicle clearance obstacles (height, width, undercarriage, angle of approach, angle of departure)  
(6) Limited space for turnaround  
(7) Side slopes (20 percent side to side)  
Substantiation: The committee recognizes that each of these situations may not exist in all areas. When possible all skills are encouraged to be accomplished.  
Committee Meeting Action: Accept  
Number Eligible to Vote: 28  
Ballot Results: Affirmative: 21  
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.

Submitter: Technical Committee on Fire Fighter Professional Qualifications,  
Recommendation: Delete current text of A.9.1.3 and add new text as follows:  
The committee's intent is to have the following maneuvers and features accomplished by the driver/operator. The committee recognizes that each of these situations might not exist within the AHJ. The committee considers these driving situations essential to driver/operator skills.  
(1) Loose or wet soil  
(2) Steep grades (30 percent fore and aft)  
(3) Limited sight distance  
(4) Vehicle clearance obstacles (height, width, undercarriage)  
(5) Limited space for turnaround  
(6) Side slopes (20 percent side to side)  
Substantiation: The committee recognizes that each of these situations may not exist in all areas. When possible all skills are encouraged to be accomplished.  
Committee Meeting Action: Accept  
Number Eligible to Vote: 28  
Ballot Results: Affirmative: 21  
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.
<table>
<thead>
<tr>
<th>Proposal Number</th>
<th>Log Number</th>
<th>Final Action</th>
<th>Sustainer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1002-19</td>
<td>CP16</td>
<td>Accept</td>
<td>Technical Committee on Fire Fighter Professional Qualifications,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Recommendation: Delete text as follows:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A.4.3.1 The maneuvers and features specified for this job performance requirement include driving situations that the committee has determined to be essential. The committee recognizes that each of these situations might not exist in all areas. Where this occurs, those specific requirements can be omitted.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Substantiation: Criteria has been moved to the annex.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Committee Meeting Action: Accept</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number Eligible to Vote: 28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ballot Results: Affirmative: 21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ballot Not Returned: Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.</td>
</tr>
<tr>
<td>1002-21</td>
<td>CP17</td>
<td>Accept</td>
<td>Technical Committee on Fire Fighter Professional Qualifications,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Recommendation: Delete text as follows:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A.8.1.2 The maneuvers and features specified for this job performance requirement include driving situations that the committee has determined to be essential. The committee recognizes that each of these situations might not exist in all areas. Where this occurs, those specific requirements can be omitted.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Substantiation: Criteria has been moved to the annex.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Committee Meeting Action: Accept</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number Eligible to Vote: 28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ballot Results: Affirmative: 21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ballot Not Returned: Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.</td>
</tr>
<tr>
<td>1002-23</td>
<td>CP18</td>
<td>Accept</td>
<td>Technical Committee on Fire Fighter Professional Qualifications,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Recommendation: Delete text as follows:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A.9.1.3 The maneuvers and features specified for this job performance requirement include driving situations that the committee has determined to be essential. The committee recognizes that each of these situations might not exist in all areas. Where this occurs, those specific requirements can be omitted.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Substantiation: Criteria has been moved to the annex.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Committee Meeting Action: Accept</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number Eligible to Vote: 28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ballot Results: Affirmative: 21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ballot Not Returned: Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.</td>
</tr>
</tbody>
</table>
Committee Meeting Action: Accept in Principle
Refer to 1002-2 (Log #CP1) (2.2) and 1002-3 (Log #CP2) (2.4).

Committee Statement: The committee has reviewed the entire document and has corrected or updated any of the reference for extracted material in separate proposals. The committee has also checked and updated cross reference material to ensure that there is consistency between the extracted material in this document and the most current editions of documents from which the material has been extracted.

Number Eligible to Vote: 28
Ballot Results: Affirmative: 21
Ballot Not Returned: 7 Edwards, S., Friedel, G., Hannan, C., Miller, I., Morse, H., Thomas, N., Whelan, M.
1021-1 Log #CP1 PQU-FOF (Entire Document) Final Action: Accept

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Review entire document to: 1) Update any extracted material by preparing separate proposals to do so, and 2) review and update references to other organizations documents, by preparing proposal(s) as required.
Substantiation: To conform to the NFPA Regulations Governing Committee Projects.
Committee Meeting Action: Accept

1021-9 Log #1 PQU-FOF (4.1) Final Action: Accept in Principle

Submitter: Randall W. Hanifen, University of Cincinnati
Recommendation: Add text to read as follows:
The fire officer 1 shall meet the level 1 requirements for confined space section, specifically section 7.1.1.
Substantiation: In recent years personnel have been injured and/or killed in confined space near-miss or LODD from lack of understanding and/or use of atmospheric monitoring of the space. The current JPR's of Level 2 firefighter per NFPA 1001 does not require this skills or knowledge of atmospheric monitoring of confined spaces.
Committee Meeting Action: Accept in Principle
Add text to read as follows:
A.4.6.1(A) Size-up includes the many variables that the officer observes from the time of the alarm, during response, and upon arrival in order to develop an initial action plan to control an emergency incident. These observations can include building type and occupancy, fire involvement, number of occupants, atmospheric and environmental monitoring, mechanism of injury, materials spilled or involved in fire, wind direction, topography, and demographics, among others.
Change and add text to read as follows:
4.6.1(B)*
A.4.6.1(B) The fire officer I should be able to perform an all-hazards assessment at incidents in accordance with policies and procedures of AHJ.
Committee Statement: While the committee was in favor of the need to include specific language, they believe the information would better placed in the A.4.6.1(A) and A.4.6.1(B) and recognized as part of size-up procedures.

1021-6 Log #2 PQU-FOF (2.3) Final Action: Accept in Principle

Submitter: Christopher P. Riley, City of Pueblo Fire Department
Recommendation: Add text to read as follows:
Substantiation: This publication, now in its eighth year, is vvided regarded and used as a guide for successful officer development. It careful considers and incorporates the NFPA Professional Qualification Standards and is endorsed by the National Fire Academy. This guide is also consistent with the credentialing components and requirements with the Fire Officer and Chief Fire Officer Designations, Commission on Professional Credentialing, Center for Public Safety Excellence.
This is not original material; its reference/source is as follows:
Committee Meeting Action: Accept in Principle
Add text to read as follows:
Committee Statement: While the technical committee agrees with the text change, they believe that from a Manual of Style perspective the information will need to be placed in Annex D.2.3. rather than Chapter 2 Section 2.3.
Report on Proposals – June 2013

1021-7  Log #3  PQU-FOF
(2.3)

Final Action: Accept in Principle

Submitter: Christopher P. Riley, City of Pueblo Fire Department

Recommendation: Add text to read as follows:


Substantiation: This publication presents the structure and requirements of the National incident Management System (NIMS), which is a Federal requirement for performing the duties set forth in the Emergency Service Delivery component of this Standard's Chapter 4 - 7.

This is not original material; its reference/source is as follows:


Committee Meeting Action: Accept in Principle

Committee Statement: While the technical committee agrees with the text change, they believe that from a Manual of Style perspective the information will need to be placed in Annex D.2.2 rather than Chapter 2 Section 2.3.


1021-13 Log #4 PQU-FOF
(4.1.3 (New))

Final Action: Accept in Principle

Submitter: Christopher P. Riley, City of Pueblo Fire Department

Recommendation: Add text to read as follows:

The Fire Officer Level I candidate will consider attaining an Associate Degree from a regionally accredited institution of higher learning.

The recommendation is consistent with the National Professional Development Model published by the National Fire Academy the credentialing components and requirements with the Fire Officer and Chief Fire Officer Designations, Commission on Professional Credentialing, Center for Public Safety Excellence. Further, many fire service organizations in recent years require this academic requirement for candidates who pursue Supervisory/Company Officer level promotion/rank.

Committee Meeting Action: Accept in Principle

Committee Statement: While the technical committee agreed with the concept, it changed the wording for clarification and which to acknowledge that these educational milestones are included as recommendations only for the development of fire officers and should not be viewed as requirements.

Add text to read as follows:

1.3.5 The fire officer at all levels of progression should matriculate and attain a regionally accredited degree from an institution of higher education.

A.1.3.5 The Fire Officer I should be matriculated into a regionally accredited institution of higher learning.

The Fire Officer II should attain an associate degree or equivalent hours in a baccalaureate at a regionally accredited institution of higher learning.

The Fire Officer III should attain baccalaureate degree at a regionally accredited institution of higher learning.

The Fire Officer IV should attain graduate level degree at a regionally accredited institution of higher learning.

It is recognized that higher education provides the knowledge, skills and abilities that can help develop competent leaders and managers. The technical committee acknowledges the Fire and Emergency Services Higher Education (FESHE) model serves as a professional development and career path template for aspiring fire officers. Further, these educational milestones are included as recommendations only for the development of fire officers and should not be viewed as requirements.

Committee Statement: While the technical committee agreed with the concept, it changed the wording for clarification and which to acknowledge that these educational milestones are included as recommendations only for the development of fire officers and should not be viewed as requirements. The committee also recognized that the material is not in JPR format (required material) should be placed in Chapter 1 with further clarification as annex material (as suggested material).
The Fire Officer Level II candidate will consider possessing a minimum of an Associate Degree from a regionally accredited institution of higher learning. Further, it is recommended that the Fire Officer Level II will consider attaining a Baccalaureate level Degree from a regionally accredited institution of higher learning.

Substantiation: The recommendation is consistent with the National Professional Development Model published by the National Fire Academy the credentialing components and requirements with the Fire Officer and Chief Fire Officer Designations, Commission on Professional Credentialing, Center for Public Safety Excellence. Further, many fire service organizations in recent years require this academic requirement for candidates who pursue mid-level or Manager level promotion/rank.

Committee Meeting Action: Accept in Principle

Add text to read as follows:

1. The fire officer at all levels of progression should matriculate and attain a regionally accredited degree from an institution of higher education.
2. The Fire Officer I should be matriculated into a regionally accredited institution of higher learning.
3. The Fire Officer II should attain an associate degree or equivalent hours in a baccalaureate at a regionally accredited institution of higher learning.
4. The Fire Officer III should attain baccalaureate degree at a regionally accredited institution of higher learning.
5. The Fire Officer IV should attain graduate level degree at a regionally accredited institution of higher learning.

It is recognized that higher education provides the knowledge, skills and abilities that can help develop competent leaders and managers. The technical committee acknowledges the Fire and Emergency Services Higher Education (FESHE) model serves as a professional development and career path template for aspiring fire officers. Further, these educational milestones are included as recommendations only for the development of fire officers and should not be viewed as requirements.

Committee Statement: While the technical committee agreed with the concept, it changed the wording for clarification and which to acknowledge that these educational milestones are included as recommendations only for the development of fire officers and should not be viewed as requirements. The committee also recognized that the material is not in JPR format (required material) should be placed in Chapter 1 with further clarification as annex material (as suggested material).
The Fire Officer Level III will consider possessing a minimum of a Baccalaureate Degree from a regionally accredited institution of higher learning.

Substantiation: The recommendation is consistent with the National Professional Development Model published by the National Fire Academy the credentialing components and requirements with the Fire Officer and Chief Fire Officer Designations, Commission on Professional Credentialing, Center for Public Safety Excellence. Further, many fire service organizations in recent years require this academic requirement for candidates who pursue Manager level or Administrator level promotion/rank.

Committee Meeting Action: Accept in Principle

Add text to read as follows:

1.3.5* The fire officer at all levels of progression should matriculate and attain a regionally accredited degree from an institution of higher education.

A.1.3.5 The Fire Officer I should be matriculated into a regionally accredited institution of higher learning.

The Fire Officer II should attain an associate degree or equivalent hours in a baccalaureate at a regionally accredited institution of higher learning.

The Fire Officer III should attain baccalaureate degree at a regionally accredited institution of higher learning.

The Fire Officer IV should attain graduate level degree at a regionally accredited institution of higher learning.

It is recognized that higher education provides the knowledge, skills and abilities that can help develop competent leaders and managers. The technical committee acknowledges the Fire and Emergency Services Higher Education (FESHE) model serves as a professional development and career path template for aspiring fire officers. Further, these educational milestones are included as recommendations only for the development of fire officers and should not be viewed as requirements.

Committee Statement: While the technical committee agreed with the concept, it changed the wording for clarification and which to acknowledge that these educational milestones are included as recommendations only for the development of fire officers and should not be viewed as requirements. The committee also recognized that the material is not in JPR format (required material) should be placed in Chapter 1 with further clarification as annex material (as suggested material).
The Fire Officer Level IV or Fire Chief/Executive Fire Officer will consider possessing a minimum of a Baccalaureate Degree from a regionally accredited institution of higher learning. Further, it is recommended that the Fire Officer Level IV or Fire Chief/Executive Fire Officer consider attaining a Graduate or Master’s level Degree from a regionally accredited institution of higher learning.

Substantiation: The recommendation is consistent with the National Professional Development Model published by the National Fire Academy the credentialing components and requirements with the Fire Officer and Chief Fire Officer Designations, Commission on Professional Credentialing, Center for Public Safety Excellence. Further, many jurisdictions, who are conducting both internal and external searches in recent years for Fire Chief/Chief Executive Officer, have stipulated this academic requirement.

Committee Meeting Action: Accept in Principle

The fire officer at all levels of progression should matriculate and attain a regionally accredited degree from an institution of higher education.

The Fire Officer I should be matriculated into a regionally accredited institution of higher learning.

The Fire Officer II should attain an associate degree or equivalent hours in a baccalaureate at a regionally accredited institution of higher learning.

The Fire Officer III should attain baccalaureate degree at a regionally accredited institution of higher learning.

The Fire Officer IV should attain graduate level degree at a regionally accredited institution of higher learning.

It is recognized that higher education provides the knowledge, skills and abilities that can help develop competent leaders and managers. The technical committee acknowledges the Fire and Emergency Services Higher Education (FESHE) model serves as a professional development and career path template for aspiring fire officers. Further, these educational milestones are included as recommendations only for the development of fire officers and should not be viewed as requirements.

Committee Statement: While the technical committee agreed with the concept, it changed the wording for clarification and which to acknowledge that these educational milestones are included as recommendations only for the development of fire officers and should not be viewed as requirements. The committee also recognized that the material is not in JPR format (required material) should be placed in Chapter 1 with further clarification as annex material (as suggested material).

For qualification at the Fire Officer Level III, the Fire Officer II shall meet the requirements of Fire Instructor Level II as defined in NFPA 1041 and the job performance requirements defined in Sections 6.2 through 6.8 of this standard.

Substantiation: The Instructor II requirement for Fire Officer III exceeds the scope of this standard. The scope of this standard is for all fire officers. According to 3.3.5 Fire Officer III is at the managerial/administrative level. An Instructor II according to 1041 section 3.3.2.2 has to have the knowledge and ability to develop individual lesson plans for a specific topic, including learning objectives, instructional aids, and evaluation instruments... and coordinate the activities of other instructors. Whereas these requirements might apply to an individual managing/administering a training academy it is not a general function of all personnel at the Fire Officer III level.

Committee Meeting Action: Accept
<table>
<thead>
<tr>
<th>Log #</th>
<th>Final Action</th>
<th>Submitter</th>
<th>Recommendation</th>
<th>Substantiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PQU-FOF</td>
<td>Reject</td>
<td>John Vance, Clay Fire Territory</td>
<td>Increased firefighter safety and operational effectiveness while operating in an IDLH, Incident Commanders should be trained in a Local Incident Management System (LIMS) that prepares IC’s to quickly size up critical fire ground factors and effectively transmit orders to subsequent arriving companies.</td>
<td>Officers serving in the role of Incident Commander (IC) must be able to quickly size up the critical incident factors and process them through a risk management plan to select and communicate the proper overall incident strategy. This situation evaluation is then used to develop an incident action plan (IAP) that leads to completion of the tactical priorities of rescue, fire control and property conversation. The IC uses the IAP to provide assignments to later arriving units. These orders must be transmitted in a way where any later arriving officer who will serve in the role of IC can monitor these assignments to facilitate a quick and seamless transfer of command. These orders also serve as the basis for situation reports from the units assigned to each operating area. The IC must be able to combine these reports with the visual information from their command position to keep the overall incident strategy and IAP current. The IC must also be able to quickly control the position and function of all units operating in the hazard zone of any incident scene. The IC achieves this by building an effective incident organization that keeps their span of control manageable.</td>
</tr>
<tr>
<td>Log #CP2</td>
<td>Accept</td>
<td>Technical Committee on Fire Officer Professional Qualifications</td>
<td>Revise text to read as follows: 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.</td>
<td>The changes reflect updates to reference materials.</td>
</tr>
</tbody>
</table>

### NFPA Publications

### Committee Meeting Action
- Reject
- Accept
Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Revise text to read as follows:

D.2.3 IAFF/IAFC Publications. IAFF, 1750 New York Avenue, NW, Washington, DC 20006; IAFC 4025 Fair Ridge Drive, Fairfax, VA 22033-2868.

Substantiation: The changes reflect updates to reference materials.
Committee Meeting Action: Accept

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Revise text to read as follows:

For qualification at Level II, the Fire Officer I shall meet the requirements of Fire Instructor I as defined in NFPA 1041 and the job performance requirements defined in Sections 5.2 through 5.7 of this standard.

Substantiation: This is a redundant statement; it is already stated in Fire Officer Level I.
Committee Meeting Action: Accept

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Revise text to read as follows:

5.2.2 Evaluate the job performance of assigned members, given personnel records and evaluation forms, so that each member’s performance is evaluated accurately and reported according to human resource policies and procedures.
(A) Requisite Knowledge. Human resource policies and procedures, job descriptions, objectives of a member evaluation program, and common errors in evaluating.
(B) Requisite Skills. The ability to communicate orally and in writing and to plan and conduct evaluations.
Substantiation: Changes made to reflect JPR formatting.
Committee Meeting Action: Accept
1021-20 Log #CP6 PQU-FOF
(5.4.3)

**Submitter:** Technical Committee on Fire Officer Professional Qualifications,

**Recommendation:** Revise text to read as follows:

5.4.3 Describe the process of purchasing, including soliciting and awarding bids, given established specifications, in order to ensure competitive bidding so that the needs of the organization are met within the applicable federal, state, and local laws and regulations.

(A) Requisite Knowledge. Purchasing laws, policies, and procedures.

(B) Requisite Skills. The ability to use evaluative methods and to communicate orally and in writing.

**Substantiation:** Changes made to reflect JPR formatting.

**Committee Meeting Action:** Accept

1021-21 Log #CP7 PQU-FOF
(5.4.5)

**Submitter:** Technical Committee on Fire Officer Professional Qualifications,

**Recommendation:** Revise text to read as follows:

5.4.5 Prepare a concise report for transmittal to a supervisor, given fire department record(s) and a specific request for details such as trends, variances, or other related topics so that AHJ required information is accurate and documented.

(A) Requisite Knowledge. The data processing system.

(B) Requisite Skills. The ability to communicate in writing and to interpret data.

**Substantiation:** Changes made to reflect JPR formatting.

**Committee Meeting Action:** Accept

1021-22 Log #CP8 PQU-FOF
(5.5.1)

**Submitter:** Technical Committee on Fire Officer Professional Qualifications,

**Recommendation:** Revise text to read as follows:

5.5.1 Determine the point of origin and preliminary cause of a fire, given a fire scene, photographs, diagrams, pertinent data, and/or sketches, to determine if arson is suspected so that law enforcement action is taken.

(A) Requisite Knowledge. Methods used by arsonists, common causes of fire, basic origin and cause and origin determination, fire growth and development, and documentation of preliminary fire investigative procedures.

(B) Requisite Skills. The ability to communicate orally and in writing and to apply knowledge using deductive skills.

**Substantiation:** Changes made to reflect JPR formatting and syntax.

**Committee Meeting Action:** Accept
### 1021-25 Log #CP9 PQU-FOF

**Final Action:** Accept

**Submitter:** Technical Committee on Fire Officer Professional Qualifications,

**Recommendation:** Revise text to read as follows:

6.2.1 Establish personnel assignments to maximize efficiency, given knowledge, training, and experience of the members available in accordance with policies and procedures so that human resources are used in an effective manner.

(A) Requisite Knowledge. Minimum staffing requirements, available human resources, and policies and procedures.

(B) Requisite Skills. The ability to relate interpersonally and to communicate orally and in writing.

**Substantiation:** Changes made to reflect JPR formatting.

**Committee Meeting Action:** Accept

### 1021-26 Log #CP10 PQU-FOF

**Final Action:** Accept

**Submitter:** Technical Committee on Fire Officer Professional Qualifications,

**Recommendation:** Revise text to read as follows:

6.2.4 Describe methods to facilitate and encourage members to participate in professional development to achieve their full potential given a professional development model so that members achieve their personal and professional goals.

(A) Requisite Knowledge. Interpersonal and motivational techniques, professional development model, goal setting, personal and organizational goals.

(B) Requisite Skills. The ability to evaluate potential, to communicate orally, and to counsel members.

**Substantiation:** Changes made to reflect JPR formatting.

**Committee Meeting Action:** Accept

### 1021-27 Log #CP11 PQU-FOF

**Final Action:** Accept

**Submitter:** Technical Committee on Fire Officer Professional Qualifications,

**Recommendation:** Revise text to read as follows:

6.3.1 Prepare a community awareness risk reduction program, given risk assessment data to enhance the quality of life by developing nontraditional services so that provide for increased safety, injury prevention, and convenient public services program outcomes are met.

(A) Requisite Knowledge. Community demographics, resource availability, community needs, and customer service principles, and program development.

(B) Requisite Skills. The ability to relate interpersonally and to communicate orally and in writing, analyze and interpret data.

**Substantiation:** Changes made to reflect JPR formatting and to reflect higher level expectation for Level III.

**Committee Meeting Action:** Accept
Technical Committee on Fire Officer Professional Qualifications,

7.2.1 Appraise the department’s human resource demographics, given appropriate community demographic data, so that to determine if the recruitment, selection, and placement of human resources is effective and consistent with law and current best practices.

(A) Requisite Knowledge. Policies and procedures; local, state/provincial, and federal regulations; community demographics; community issues; and formal and informal community leaders.

(B) Requisite Skills. The ability to communicate orally and in writing, to relate interpersonally, to delegate authority, to analyze issues, and to solve problems.

Substantiation: Changes made to reflect JPR formatting.

Committee Meeting Action: Accept

7.2.2 Evaluate current employee/management relations and initiate the development of a process supports a positive and participative employee/management program.

7.2.2 Initiate the development of a program given current member/management relations so that a positive and participative member/management program exists.

(A) Requisite Knowledge. Policies and procedures, contractual agreements, and local, state/provincial, and federal regulations.

(B) Requisite Skills. The ability to communicate orally and in writing, to negotiate, to analyze current status of employee member relations, to relate interpersonally, to analyze the current employee member/management relations, and to conduct program implementation.

Substantiation: Changes made to reflect JPR formatting and change "employee" to "member" to reflect a broad spectrum of person associated to a department.

Committee Meeting Action: Accept

7.2.4 Appraise a member-assistance program, given data, so that to determine if the program, when used, produces the desired stated program outcomes, results, and benefits.

(A) Requisite Knowledge. Policies and procedures, available assistance programs, contractual agreements, and local, state/provincial, and federal regulations.

(B) Requisite Skills. The ability to communicate orally and in writing, to relate interpersonally to members, and to analyze needs and results.

Substantiation: Changes made to reflect JPR formatting.

Committee Meeting Action: Accept
Technical Committee on Fire Officer Professional Qualifications,

Revise text to read as follows:

7.3.1 Attend, participate in, and assume a leadership role in community functions in given community events and needs so that an in order to understand understanding and the ability to respond to community needs and respond to community needs and enhance the image of the fire department organization is enhanced.

(A) Requisite Knowledge. Community demographics, community and civic issues, effective customer service methods, and formal and informal community leaders.

(B) Requisite Skills. The ability to communicate orally and familiarity with public relations.

Substantiation: Changes made to reflect JPR formatting.

Committee Meeting Action: Accept

---

Technical Committee on Fire Officer Professional Qualifications,

Revise text to read as follows:

7.4.2 Evaluate and project training requirements, facilities, and buildings needs, given data that reflects community needs and resources, so that to meet departmental training goals are met.

(A) Requisite Knowledge. Policies and procedures, physical and geographic characteristics, building and fire codes, departmental plan, staffing requirements, training standards, needs assessment, contractual agreements, and local, state/provincial, and federal regulations.

(B) Requisite Skills. The ability to communicate orally and in writing, and familiarity with fiscal analysis, forecasting needs, and analyzing data.

Substantiation: Changes made to reflect JPR formatting and syntax.

Committee Meeting Action: Accept

Committee Statement: Refer to Committee Proposal 1021-35 (Log #CP26) for additional changes.

---

Technical Committee on Fire Officer Professional Qualifications,

Revise text to read as follows:

7.6.1 Develop a comprehensive disaster plan that integrates other agencies' resources, given risk, vulnerability, and capability data, so that the organization can in order to rapidly and effectively mitigate the impact on to the community.

(A) Requisite Knowledge. Major incident policies and procedures, physical and geographic characteristics, demographics, target hazards, incident management systems, communications systems, intelligence data, contractual and mutual-aid agreements, and local, state/provincial, and federal regulations and resources.

(B) Requisite Skills. The ability to analyze data; communicate orally and in writing; develop organize a disaster plan; familiarity with coordinate inter-agency activity planning and coordination.

Substantiation: Changes made to reflect JPR formatting.

Committee Meeting Action: Accept
For qualification at Fire Officer Level I, the candidate shall meet the requirements of Fire Fighter II as defined in NFPA 1001, Fire Instructor I as defined in NFPA 1041, and the job performance requirements defined in Sections 4.2 through 4.7 of this standard.

Substantiation: The presenter stated that it is a burden economically and a discouraging factor when there may be no direct link to specific training to have this as a prerequisite to Fire Officer I candidates.

Committee Meeting Action: Reject
Committee Statement: The technical committee believes that it is an essential job task for the Fire Officer I.

The organizational structure of the department; geographical configuration and characteristics of response districts; departmental operating procedures for administration, emergency operations, incident management system and safety; fundamentals of leadership; departmental budget process; information management and recordkeeping; the fire prevention and building safety codes and ordinances applicable to the jurisdiction; current trends, technologies, and socioeconomic and political factors that affect the fire service; cultural diversity; methods used by supervisors to obtain cooperation within a group of subordinates; the rights of management and members; agreements in force between the organization and members; generally accepted ethical practices, including a professional code of ethics; and policies and procedures regarding the operation of the department as they involve supervisors and members.

Substantiation: There is no reference to leadership within NFPA 1021. It is considered an essential job performance requirement.

Committee Meeting Action: Accept

Recommend action for member-related problems, given a member with a situation requiring assistance and the member assistance policies and procedures, so that the situation is identified and the actions taken are within the established policies and procedures.

(A) Requisite Knowledge. The signs and symptoms of member-related problems, causes of stress in emergency services personnel, adverse effects of stress on the performance of emergency service personnel, CISD and CISM, and awareness of AHJ member assistance policies and procedures.

(b) Requisite Skills. The ability to recommend a course of action for a member in need of assistance.

Substantiation: There is no reference to CISD and CISM briefings in NFPA 1021.

Committee Meeting Action: Reject
Committee Statement: The technical committee discussed this during previous revision cycles and determined that the terms used may not be accurate and the benefits may not be substantiated.
1021-16 Log #CP21 PQU-FOF
(4.6.3) Final Action: Reject

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Revise text to read as follows:
4.6.3 Develop and conduct a post-incident analysis, given a single unit incident and post-incident analysis policies, procedures, and forms; so that all required critical elements are identified and communicated, and the approved forms are completed and processed in accordance with policies and procedures.
(A) Requisite Knowledge. Elements of a post-incident analysis, basic building construction, basic fire protection systems and features, basic water supply, basic fuel loading, fire growth and development, and departmental procedures relating to dispatch response tactics and operations and customer service.
(B) Requisite Skills. The ability to write reports, to communicate orally, and to evaluate skills.

Substantiation: The term is redundant within the statement.
Committee Meeting Action: Reject
Committee Statement: The technical committee believes that the statement is not redundant and is relevant to Level I.

1021-14 Log #CP22 PQU-FOF
(4.2.3) Final Action: Reject

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Delete the following text:
4.2.3 Direct unit members during a training evolution, given a company training evolution and training policies and procedures, so that the evolution is performed in accordance with safety plans, efficiently, and as directed.
(A) Requisite Knowledge. Verbal communication techniques to facilitate learning.
(B) Requisite Skills. The ability to distribute issue-guided directions to unit members during training evolutions.

Substantiation: With the requisite requirement of Fire Service Instructor I, this JPR is considered redundant to Level I.
Committee Meeting Action: Reject
Committee Statement: The technical committee believes that this is an essential job task to the Fire Officer Level I and needs to be re-enforced within this the document.
| Submitter: Technical Committee on Fire Officer Professional Qualifications, |
| Recommendation: Revise and add text to read as follows: |

| 4.1.1* |
| 5.1.1* |
| 6.1.1* |
| 7.1.1* |

**A.4.1.1** Understand negligence, duty to act, standard of care, tort immunity, types of laws (statutes, regulations, etc.), role of OSHA, impact of NFPA standards on OSHA and standard of care; sexual harassment

**A.5.1.1** Advanced understanding of negligence to include negligent hiring, negligent supervision, negligent retention; respondeat superior; understanding of tort claims acts, sovereign immunity, statutory immunity, special duty, public duty; knowledge of OSHA standards and citations; and strategies for compliance with OSHA documentation requirements

**A.6.1.1** Workers compensation, civil service system, role of courts (civil suits, criminal proceedings, appeals, review of administrative decisions), criminal liability for offenses such as manslaughter, negligent homicide; EEO laws and civil rights; open records and open meetings laws; conflicts of interests, ethics

**A.7.1.1** Fair Labor Standards, Collective bargaining, employment discrimination (80% rule, BFOQ, limitations on physical abilities testing, plus issues associated with age, gender, ADA, race, religion)

**Substantiation:** There is no information referencing legal considerations within the document.

**Committee Meeting Action:** Accept

---

| Submitter: Technical Committee on Fire Officer Professional Qualifications, |
| Recommendation: Revise text to read as follows: |

**A.4.6.1(A)** Size-up includes the many variables that the officer observes from the time of the alarm, during response, and upon arrival in order to develop an initial action plan to control an emergency incident. These observations can include building type and occupancy, fire involvement, number of occupants, mechanism of injury, materials spilled or involved in fire, damage to buildings and infrastructure, wind direction, topography, and demographics, among others.

**Substantiation:** This addition further details the components to size-up essential job task.

**Committee Meeting Action:** Accept
1021-33  Log #CP25  PQU-FOF
(7.4.1)
Final Action: Accept

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Revise text to read as follows:
7.4.1 Develop a comprehensive long-range plan, given community requirements, current department status, and resources, so that the projected needs of the community are met.
(A) Requisite Knowledge. Policies and procedures, physical and geographic characteristics, demographics, community plan, staffing requirements, response time benchmarks, contractual agreements, and local, state/provincial, and federal regulations.
(B) Requisite Skills. The ability to communicate orally and in writing, make public presentations, and familiarity with fiscal analysis, public policy processes, forecasting resources, and analyzing current department status requirements.

Substantiation: Part of the essential job task would be to make a public presentation. The deletion of the phrase "with familiarity" is for JPR formatting.
Committee Meeting Action: Accept

1021-35  Log #CP26  PQU-FOF
(7.4.2)
Final Action: Accept

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Revise text to read as follows:
7.4.2 Evaluate and project training requirements, facilities, and buildings needs, given data that reflects community needs and resources, so that departmental training goals are met.
(A) Requisite Knowledge. Policies and procedures, physical and geographic characteristics, building and fire codes, departmental plan, staffing requirements, training standards, needs assessment, contractual agreements, and local, state/provincial, and federal regulations.
(B) Requisite Skills. The ability to communicate orally and in writing, make public presentations, and familiarity with fiscal analysis, forecasting needs, and analyzing data.

Substantiation: Part of the essential job task would be to make a public presentation. The deletion of the phrase "with familiarity" is for JPR formatting. (Also see 1021-34 (Log #CP16)).
Committee Meeting Action: Accept
Committee Statement: Refer to Committee Proposal 1021-34 (Log #CP16) for additional changes.

1021-3  Log #CP27  PQU-FOF
(1.1 Scope)
Final Action: Accept

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Revise text to read as follows:
1.1 Scope. This standard shall identify the minimum job performance requirements necessary to perform the duties of a fire officer and specifically identify four levels of progression. This standard identifies the minimum job performance requirements (JPRs) for fire officer.

Substantiation: Reflects TCC consideration for pro-qual project consistency, refer to June 2011 meeting.
Committee Meeting Action: Accept
1021-4 Log #CP28 PQU-FOF
(1.2 Purpose) Final Action: Accept

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Revise text to read as follows:
1.2 Purpose. The purpose of this standard shall be to specify the minimum job performance requirements for service serving as a fire officer.
Substantiation: For grammatical change.
Committee Meeting Action: Accept

1021-8 Log #CP29 PQU-FOF
(3.3.8 Job Performance Requirement (JPR)) Final Action: Accept

Submitter: Technical Committee on Fire Officer Professional Qualifications,
Recommendation: Revise definition to read as follows:
3.3.8 Job Performance Requirement (JPR). A written statement that describes a specific job task, lists the items necessary to complete the task, and defines measurable or observable outcomes and evaluation areas for the specific task. [1000, 2006 2011]
Substantiation: The change reflect updates to reference materials.
Committee Meeting Action: Accept
Technical Committee on Incident Management Professional Qualifications,

**Recommendation:** Review entire document to: 1) Update any extracted material by preparing separate proposals to do so, and 2) review and update references to other organizations documents, by preparing proposal(s) as required.

**Substantiation:** To conform to the NFPA Regulations Governing Committee Projects.

**Committee Meeting Action:** Accept

---

**1026-2 Log #CP2 PQU-ICM**

(1.1 Scope)

**Submitter:** Technical Committee on Incident Management Professional Qualifications,

**Recommendation:** Revise text to read as follows:

1.1 Scope. This standard shall identify the minimum job performance requirements (JPRs) for personnel performing roles within an all-hazard incident management system. This standard identifies the minimum job performance requirements (JPRs) for personnel performing roles within an all-hazards incident management system.

**Substantiation:** To conform with TCC recommendation to align document scopes within Pro-Qual Project.

**Committee Meeting Action:** Accept

---

**1026-3 Log #CP3 PQU-ICM**

(2.4)

**Submitter:** Technical Committee on Incident Management Professional Qualifications,

**Recommendation:** Revise text to read as follows:

2.4 References for Extracts in Mandatory Sections.


**Substantiation:** To update reference material sources.

**Committee Meeting Action:** Accept

---

**1026-4 Log #CP4 PQU-ICM**

(3.3.44 Job Performance Requirement (JPR))

**Submitter:** Technical Committee on Incident Management Professional Qualifications,

**Recommendation:** Revise definition to read as follows:

3.3.44 Job Performance Requirement (JPR). A statement that describes a specific job task, lists the items necessary to complete the task, and defines measurable or observable outcomes and evaluation areas for the specific task. [1000, 2006-2011]

**Substantiation:** To update reference material sources.

**Committee Meeting Action:** Accept
Technical Committee on Incident Management Professional Qualifications,

**Recommendation:** Revise definition to read as follows:

3.3.64 Procedure. The series of actions, conducted in an approved manner and sequence, designed to achieve an intended outcome. [1081, 2607 2012]

Substantiation: To update reference material sources.
Committee Meeting Action: Accept

---

Technical Committee on Incident Management Professional Qualifications,

**Recommendation:** Revise definition to read as follows:

3.3.84 Strike Team. Specified combinations of the same kind and type of resources, with common communications and a leader. [1051, 2607 2012]

Substantiation: To update reference material sources.
Committee Meeting Action: Accept

---

Technical Committee on Incident Management Professional Qualifications,

**Recommendation:** Revise definition to read as follows:

3.3.88 Tactics. Deploying and directing resources on an incident to accomplish the objectives designated by strategy. [1051, 2607 2012]

Substantiation: To update reference material sources.
Committee Meeting Action: Accept

---

Technical Committee on Incident Management Professional Qualifications,

**Recommendation:** Revise text to read as follows:

5.3.6 Conduct a safety and health investigation of an accident, incident, or planned event or near miss, using given applicable documents and techniques, so that the circumstances surrounding it are identified, deviations from SOPs established by the AHJ and health and safety policies are noted, recommendations are made for preventing similar violations/losses in the future, and all information gathered in the investigation is documented, reported, and recorded according to policies established by the AHJ.

(A) **Requisite Knowledge.** Procedures for conducting, documenting, recording, and reporting a safety investigation, SOPs and health and safety policies used by the AHJ, procedures for preserving evidence and documentation, and the technical knowledge pertinent to the incident under investigation.

(B) **Requisite Skills.** Analyzing information from different data sources; interacting with or interviewing personnel associated with the incident, often under conditions of personal stress; completing safety investigation documentation; identifying cause(s) of injury, death, or property damage; and determining corrections to prevent similar future losses.

Substantiation: To conform with JPR formatting.
Committee Meeting Action: Accept
1026-11  Log #CP9  PQU-ICM  
(13.3.3)  Final Action: Accept

Submitter: Technical Committee on Incident Management Professional Qualifications,
Recommendation: Add text to read as follows:
13.3.3 Implement and monitor air operation assignments, given an air tactical group supervisor and helicopter coordinator, air operations resources, situation status information, and operational procedures, so that divisions and groups are established to accomplish tactical tasks, specific work tasks are assigned to Air Operations, appropriate span-of-control is maintained, plans and/or assignments are modified as dictated by incident conditions, resource needs for the personnel assigned are obtained, and the Operations Section Chief is notified of necessary changes to the IAP.
(A) Requisite Knowledge. ICS organization structure expansion procedures, communication skills, span-of-control procedures, tactics for the Air Operations Branch Director, and accountability and transfer of duty procedures.
(B) Requisite Skills. Communicating by radio and other means, using accountability procedures, and implementing tactical operations specified for the assigned Air Operations Branch Director.
Substantiation: To conform with JPR formatting.
Committee Meeting Action: Accept

1026-12  Log #CP10  PQU-ICM  
(14.3.3)  Final Action: Accept

Submitter: Technical Committee on Incident Management Professional Qualifications,
Recommendation: Add text to read as follows:
14.3.3 Implement and monitor air operation assignments, given an Air Tactical Group Supervisor and helicopter coordinator, air operations resources, situation status information, and operational procedures, so that divisions and groups are known to the assigned personnel to accomplish tasks, specific work tasks are assigned to Air Operations, appropriate span-of-control is maintained, plans and/or assignments are modified as dictated by incident conditions, resource needs for the personnel assigned are obtained, and the Operations Section Chief is notified of necessary changes to the IAP.
(A) Requisite Knowledge. ICS organization structure, expansion procedures, communication skills, span of control procedures, tactics for the Air Support Group Supervisor's accountability, and transfer of duty procedures.
(B) Requisite Skills. Communicating by radio and other means, implementing accountability procedures, and performing tactical operations specific for the assigned Air Support Group Supervisor.
Substantiation: To conform with JPR formatting.
Committee Meeting Action: Accept

1026-13  Log #CP11  PQU-ICM  
(15.3.3)  Final Action: Accept

Submitter: Technical Committee on Incident Management Professional Qualifications,
Recommendation: Add text to read as follows:
15.3.3 Implement and supervise air operation assignments, given helicopter coordinator, air operations resources, situation status information, and operational procedures, so that divisions and groups are known to the assigned personnel to accomplish tasks, specific work tasks are assigned to air operations, appropriate span-of-control is maintained, plans and/or assignments are modified as dictated by incident conditions, resource needs for the personnel assigned are obtained, and the Operations Section Chief is notified of necessary changes to the IAP.
(A) Requisite Knowledge. ICS organization structure, expansion procedures, communication skills, span-of-control procedures, and tactics for the air operations, accountability, and transfer of duty procedures.
(B) Requisite Skills. Communicating by radio and other means, implementing accountability procedures, and performing tactical operations specific to the assigned Air Tactical Group Supervisor.
Substantiation: To conform with JPR formatting.
Committee Meeting Action: Accept
Submitter: Technical Committee on Incident Management Professional Qualifications,

Recommendation: Revise text to read as follows:

E.2.1 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.


Substantiation: To update reference material sources.

Committee Meeting Action: Accept
For qualification at the Public Information Officer (PIO) level, the candidate shall meet the general knowledge requirements in 6.1.1.1, the general skill requirements in 6.1.1.2, and the job performance requirements (JPRs) defined in Sections 6.2 and 6.3.

6.1.1.1 General Knowledge Requirements. Familiarity with the National Response Framework and how it relates to the role of the PIO, knowledge of the National Incident Management System (NIMS) and the Incident Command System (ICS), and knowledge of procedures for stopping unsafe or incorrect acts or operations.

6.1.1.2 General Skill Requirements. Prioritizing tasks so as to accomplish the most critical first, making decisions in an environment with a large number of unknowns, evaluating material resources needs, recognizing the need for supplemental technical knowledge, anticipating hazards and taking action in a proactive manner to ensure responder safety and health, and recognizing and identifying unsafe acts and operations.

6.2 Assume and Transfer the Position of Public Information Officer.

This duty shall involve assuming the role of a PIO at an incident or planned event, assigning Assistant PIOs (as needed), and transferring PIO duties to another person at the appropriate time, according to the following job performance requirements:

6.2.1 Assume role of a PIO within an ICS at an incident or planned event, given an incident or planned event, an Incident Action Plan (IAP), an incident briefing, standard operating procedures, and communications equipment, so that relevant situational information of the incident or planned event is gained and maintained; the relationship with the outgoing PIO or other personnel performing the function is established and maintained; the priorities, goals, and objectives of the Incident Commander (IC) are received and understood; notification of position assumption is verbalized and documented; and the location of public information is identified and confirmed with the IC.

(A) Requisite Knowledge. The role and duties of a PIO within ICS and organizational policies and procedures for the PIO.

(B) Requisite Skills. Acquiring and documenting information and orders from the IC.

6.2.2 Manage the transfer of PIO duties at an incident or planned event, given an incident or planned event, an established command structure and a PIO, an IAP, a current situation status, a command post, incident documentation, and communications equipment, so that incident information is exchanged, reports and plans for the subsequent operational period are completed, continuity of authority and situational awareness are maintained, changes in incident complexity are accounted for; the new PIO is fully briefed on the incident or planned event; and the new PIO is identified.

(A) Requisite Knowledge. Transfer of duty procedures, information sources, resource accountability and tracking process; use of ICS forms; the role and duties of a PIO within ICS; organizational policies and procedures for the PIO; accountability protocols; resource types and deployment methods; documentation methods and requirements; availability, capabilities, and limitations of responders and other resources; communication problems and needs; communications requirements, methods, and means; and types of tasks and assignment responsibilities.

(B) Requisite Skills. Conducting a transfer briefing meeting, acquiring and documenting information and orders from the IC; using reference materials; evaluating incident information; managing communications; and transferring information that allows objectives to be met.

6.3 Manage Public Information at an Incident or Planned Event.

This duty shall involve managing the gathering and dissemination of public information at an incident or planned event and developing a public information plan for an incident or planned event, according to the following JPRs:

6.3.1 Gather and develop information about an incident or planned event, given an incident or planned event, an IAP, sources of information, AHJ policies and procedures, applicable forms, and information-gathering equipment, so that all available incident information is obtained; available documentation is reviewed, evaluated, and maintained; material for use in media briefings, presentations, and displays is developed; rumors are identified and rumor control action is taken; incident information is kept current; incident fact sheets are developed; plans for special situations (contingencies) within the incident or planned event are developed, VIP visits and special situations within the incident or planned event are supported; an information demobilization plan preparation is supported; and the IC is informed of sensitive information and community concerns.

(A) Requisite Knowledge. Good management principles, procedures for releasing information regarding the incident
or planned event, public information policies used by the AHJ, and procedures for documenting and reporting.

(B) Requisite Skills. Prioritize tasks so as to accomplish the most important first, make decisions, recognize the need for supplemental technical knowledge, analyze various forms of information and documentation, and identify with the IC appropriate information to be released:

6.3.2 Release information about an incident or planned event; given an incident or planned event, an IAP, information related to the incident or planned event; a joint information system; AHJ policies, procedures, and protocols for approving information release, and IC approval obtained for release of all information so that media relations are facilitated; escorts are provided to maintain safety and impart needed information; contact with the media is initiated; inquiries from the media are responded to; updates are provided to media and community leaders as required; interviews are concise, accurate, well planned in accordance with protocols, and consistent with current information; dissemination of relevant information to incident personnel is maintained; and coordination with other information functions (e.g., dispatch, cooperating and assisting agencies, JIC) is accomplished.

(A) Requisite Knowledge. Procedures for releasing information regarding the incident or planned event, public information policies used by the AHJ; procedures for documenting and reporting; and procedures for documentation:

6.3.3 Coordinate the flow of information within an incident command structure, given an incident or planned event; an incident command structure; an IAP; information related to the incident; a joint information system; AHJ policies, procedures, and protocols for conveying information so that information is communicated and coordinated with all command and general staff; feedback is provided to subordinates; written documentation is completed according to procedures; demobilization efforts are communicated with the planning section chief and are communicated to local agencies and staff; rumors are identified and rumor control action is taken; interviews are concise, accurate, well planned in accordance with protocols, and consistent with current information; support staff are aware of planning meeting assignments; and priorities, tactics, and any changes are communicated and understood within the public information function:

(A) Requisite Knowledge. Procedures for releasing information regarding the incident or planned event, public information policies used by the AHJ; procedures for documenting and reporting; and procedures for documentation:

(B) Requisite Skills. Analyzing various forms of information; documenting the information; identifying with the IC information to be released; and being able to interface with the news media:

6.3.4 Acquire workspace and resources to perform assigned duties of the PIO, given an incident or planned event and the duties of the PIO, so that an adequate workspace is established and the resources necessary to perform the duties are acquired and documented:

(A) Requisite Knowledge. Resource requirements needed to support the PIO duties; PIO responsibilities and capabilities; ICS forms; types of information sources; documentation methods and requirements, and communications methods:

(B) Requisite Skills. Using coordination skills to acquire resources, determining resource needs of the Safety Officer, collecting and organizing information, and assessing workspace and resource requirements:

6.3.5 Manage the workflow process and set time schedules to accomplish duties assigned at an incident or planned event, given an incident or planned event and duties assigned to the PIO, so that procedures are established for work activities, work schedules are established, staff resources to perform needed tasks are obtained, and tasks are assigned:

(A) Requisite Knowledge. Resource requirements and position duties of the PIO, time management requirements, management processes, types of information sources, schedule types and display methods, and ICS forms and specific uses:

(B) Requisite Skills. Managing staff, giving direction and setting goals and priorities for staff, managing time, collecting and organizing information, assessing scheduling requirements and developing a timeline for activities, and acquiring and documenting information and orders from other Incident Command personnel:

6.3.6 Develop a public information plan for an incident or planned event; given an incident or planned event, incident objectives and desired outcomes, incident situation and resource status information, Assistant PIOs (if required); references, methods of acquiring resources, and AHJ policies and procedures relative to public information, so that incident public information needs are supported to allow incident objectives and desired outcomes to be met; span of control is maintained; interpersonal and interagency working relationships are established and maintained; resource needs are prioritized based on incident conditions; and the “service concept” is practiced with the public, media, and incident personnel:

(A) Requisite Knowledge. Procedures for releasing information regarding the incident or planned event, public information policies used by the AHJ; procedures for documenting and reporting; and procedures for documentation:

(B) Requisite Skills. Analyzing various forms of information; documenting the information; and identifying with the IC.
Gather and develop information about an incident or planned event, given an incident or planned event, an IAP, an Incident Action Plan (IAP), an incident briefing, standard operating procedures, and communications equipment, so that incident information is exchanged, reports and plans for the subsequent operational period are completed, continuity of authority and situational awareness are maintained, changes in incident complexity are accounted for, the new PIO is fully briefed on the incident or planned event, and the new PIO is identified.

(A) Requisite Knowledge. The role and duties of a PIO within ICS and organizational policies and procedures for the PIO.

(B) Requisite Skills. Acquiring and documenting information and orders from the IC.

6.2.2 Manage the transfer of PIO duties at an incident or planned event, given an incident or planned event, an established command structure and a PIO, an IAP, a current situation status, a command post, incident documentation, and communications equipment, so that incident information is exchanged, reports and plans for the subsequent operational period are completed, continuity of authority and situational awareness are maintained, changes in incident complexity are accounted for, the new PIO is fully briefed on the incident or planned event, and the new PIO is identified.

(A) Requisite Knowledge. Transfer of duty procedures, information sources; resource accountability and tracking process; use of ICS forms; the role and duties of a PIO within ICS; organizational policies and procedures for the PIO; accountability protocols; resource types and deployment methods; documentation methods and requirements; availability, capabilities, and limitations of responders and other resources; communication problems and needs; communications requirements, methods, and means; and types of tasks and assignment responsibilities.

(B) Requisite Skills. Conducting a transfer briefing meeting, acquiring and documenting information and orders from the IC, using reference materials, evaluating incident information, managing communications, and transferring information that allows objectives to be met.

6.3 Manage Public Information at an Incident or Planned Event.

This duty shall involve managing the gathering and dissemination of public information at an incident or planned event and developing a public information plan for an incident or planned event, according to the following JPRs.

6.3.1 Gather and develop information about an incident or planned event, given an incident or planned event, an IAP, sources of information, AHJ policies and procedures, applicable forms, and information-gathering equipment, so that all available incident information is obtained; available documentation is reviewed, evaluated, and maintained; material for use in media briefings, presentations, and displays is developed; rumors are identified and rumor control action is taken;
incident information is kept current; incident fact sheets are developed; plans for special situations (contingencies) within the incident or planned event are developed; VIP visits and special situations within the incident or planned event are supported; preparation of an information demobilization plan is supported; and the IC is informed of sensitive information and community concerns.

(A) **Requisite Knowledge.** Good management principles, procedures for releasing information regarding the incident or planned event, public information policies used by the AHJ, and procedures for documenting and reporting.

(B) **Requisite Skills.** Prioritize tasks so as to accomplish the most important first, make decisions, recognize the need for supplemental technical knowledge, analyze various forms of information and documentation, and identify with the IC appropriate information to be released.

6.3.2 Release information about an incident or planned event, given an incident or planned event; an IAP; information related to the incident or planned event; a joint information system; AHJ policies, procedures, and protocols for approving information release; and IC approval obtained for release of all information so that media relations are facilitated; escorts are provided to maintain safety and impart needed information; contact with the media is initiated; inquiries from the media are responded to; updates are provided to media and community leaders as required; interviews are concise, accurate, well planned in accordance with protocols, and consistent with current information; dissemination of relevant information to incident personnel is maintained; and coordination with other information functions (e.g., dispatch, cooperating and assisting agencies, JIC) is accomplished.

(A) **Requisite Knowledge.** Procedures for releasing information regarding the incident or planned event, public information policies used by the AHJ, procedures for documenting and reporting, and procedures for documentation.

(B) **Requisite Skills.** Analyzing various forms of information, documenting the information, identifying with the IC information to be released, and being able to interface with the news media.

6.3.3* Coordinate the flow of information within an incident command structure, given an incident or planned event; an incident command structure; an IAP; information related to the incident; a joint information system; AHJ policies, procedures, and protocols for conveying information so that information is communicated and coordinated with all command and general staff; feedback is provided to subordinates; written documentation is completed according to procedures; demobilization efforts are communicated with the planning section chief and are communicated to local agencies and staff; rumors are identified and rumor control action is taken; interviews are concise, accurate, well planned in accordance with protocols, and consistent with current information; support staff are aware of planning meeting assignments; and priorities, tactics, and any changes are communicated and understood within the public information function.

(A) **Requisite Knowledge.** Procedures for releasing information regarding the incident or planned event, public information policies used by the AHJ, procedures for documenting and reporting.

(B) **Requisite Skills.** Analyzing various forms of information, documenting the information, and identifying with the IC information to be released.

6.3.4 Acquire and establish workspace, media area and other resources to perform assigned duties of the PIO, given an incident or planned event and the duties of the PIO, so that an adequate workspace is established to conduct PIO functions, the media area is designated and set up to safely accommodate the number and types of media present, and the resources necessary to perform the duties are acquired and documented.

(A) **Requisite Knowledge.** Resource requirements needed to support the PIO duties, PIO responsibilities and capabilities, media area requirements, safety considerations, ICS forms, types of information sources, documentation methods and requirements, and communications methods.

(B) **Requisite Skills.** Using coordination skills to acquire resources, determining resource needs of the Safety Officer, collecting and organizing information, and assessing workspace and resource requirements.

6.3.5 Manage the workflow process and set time schedules to accomplish duties assigned at an incident or planned event, given an incident or planned event and duties assigned to the PIO, so that procedures are established for work activities, work schedules are established, staff resources to perform needed tasks are obtained, and tasks are assigned.

(A) **Requisite Knowledge.** Resource requirements and position duties of the PIO, time management requirements, management processes, types of information sources, schedule types and display methods, and ICS forms and specific uses.

(B) **Requisite Skills.** Managing staff, giving direction and setting goals and priorities for staff, managing time, collecting and organizing information, assessing scheduling requirements and developing a timeline for activities, and acquiring and documenting information and orders from other Incident Command personnel.

6.3.6 Develop a public information plan for an incident or planned event, given an incident or planned event, incident objectives and desired outcomes, incident situation and resource status information, Assistant PIOs (if required), references, methods of acquiring resources, and AHJ policies and procedures relative to public information, so that incident public information needs are supported to allow incident objectives and desired outcomes to be met, span of
control is maintained, interpersonal and interagency working relationships are established and maintained, resource needs are prioritized based on incident conditions, and the "service concept" is practiced with the public, media, and incident personnel.

(A) **Requisite Knowledge.** Procedures for releasing information regarding the incident or planned event, public information policies used by the AHJ, procedures for documenting and reporting, and procedures for documentation.

(B) **Requisite Skills.** Analyzing various forms of information, documenting the information, and identifying with the IC information to be released.

6.3.7* Prepare a news release and media advisory, given incident or event information, policies and procedures, and document templates so that the news release and media advisory content is pertinent, timely, concise, and accurate.

(A) **Requisite Knowledge.** News release and media advisory formats, and media requirements.

(B) **Requisite Skill.** Compose information, complete templates.

6.3.8 Disseminate information to the media through briefings and interviews, given news release or media advisory documents, characteristics of local media, including deadlines, organizational policies, and methods available to reach the media, so that the information is accurately communicated and in a timely manner.

(A) **Requisite Knowledge.** Specific methods for disseminating information to the media.

(B) **Requisite Skills.** Develop, maintain, and strengthen relationships with the media.

6.3.9 Disseminate information to specific community groups, given news release or media advisory documents, organizational policies, procedures, and methods for contacting those groups, so that the information is communicated accurately using various methods and in a timely manner.

(A) **Requisite Knowledge.** Policies and procedures, community groups, methods for contacting.

(B) **Requisite Skill.** Develop, maintain, and strengthen relationships with community groups, and use of the available information technology.

6.3.10 Disseminate information to an internal audience, given incident or event information, organizational policies, methods, and time frame for releasing information, so that the information is communicated accurately, using various methods, and in a timely manner.

(A) **Requisite Knowledge.** Policies and procedures, specific methods for disseminating information internally.

(B) **Requisite Skills.** Maintain relationship with internal target audience and use of the available information technology.

6.3.11 Organize and direct a news conference for the media, given incident, event, or issue information; media characteristics; methods available for reaching media; and organizational policies on news conferences, so that a site is obtained, desired media are notified, a news conference agenda is established, a media information package is created, and participants in the news conference are notified, participants are briefed and prepared, and the news conference is conducted according to the agenda.

(A) **Requisite Knowledge.** News conference logistical requirements.

(B) **Requisite Skills.** Establish a relationship with the media, disseminate information, coordinate site selection, and create media materials.

6.3.12 Manage the demobilization process for assigned staff, given an incident or planned event, assigned staff, and a demobilization plan, so that staff members understand the demobilization process, procedures in the plan are followed, performance ratings are completed and staff are released according to the plan, and transportation home is completed.

(A) **Requisite Knowledge.** Local and incident-specific procedures for incident termination and demobilization.

(B) **Requisite Skills.** Estimating of resources needed to handle remaining workload, using ICS forms correctly, and communicating demobilization information to assigned resources.

**Annex A Explanatory Material**

A.6.1.1 It is recommended that a Public Information Officer (PIO) trainee have experience in the PIO function before performing the duties and responsibilities of a PIO. It is recommended that a trainee be mentored or trained by an experienced PIO and participate in simulations or simulator exercises that provide equivalent training.

A.6.3.3 When a Joint Information Center is established, the Public Information Officer participates in the release of information at this location.

A.6.3.7 Figure A.6.3.7(a), Figure A.6.3.7(b), and Figure A.6.3.7(c) depict three worksheets that could serve as a template to the ones that could be used when the department does not have one of their own. A media advisory pertains to an upcoming event or activity that an organization is sponsoring, supporting, or participating in. Examples include an open house, a special training course, and a dignitary visit.
A.6.3.9 A media advisory pertains to an upcoming event or activity that an organization is sponsoring, supporting, or participating in. Examples include an upcoming media conference, or non-incident events such as an open house, a special training course, and a dignitary visit.

Annex E 2.1 Informational References


Substantiation: In an effort to reduce overlapping within the Pro-Qual documents, PQU-ICM TC will take responsibility for PIO JPRs from NFPA 1035 and will include them as part of NFPA 1026 PIO JPRs.

Committee Meeting Action: Accept
## Incident Information

(CITY, State) — Customize this sheet to meet the organization’s needs. In this section, write brief, but concise, information about the incident while referring to the Associated Press Stylebook for writing style information.

Look for opportunities to reinforce your organizations’ messages and include those too. A couple of examples are highlighting working smoke alarms when they alert a sleeping family and all escape safely, or bringing attention to a rollover accident with no injuries because the people involved were properly restrained.

### Incident information title

Your Organization — 12345 Your Street — City, State Zip Code — www.yoururl.org

---

<table>
<thead>
<tr>
<th>Incident date</th>
<th>Dispatch time</th>
<th>Type of incident</th>
<th>Release I.D. #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incident address</th>
<th>Department lending mutual aid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dollar loss</th>
<th>Dollars saved</th>
<th>Occupancy type</th>
<th>Displaced occupants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Civilian injuries</th>
<th>Civilian fatalities</th>
<th>Civilians rescued/saved</th>
<th>Working smoke alarms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pet injuries</th>
<th>Pet fatalities</th>
<th>Pets rescued/saved</th>
<th>Special property saved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire fighter injuries</th>
<th>Fire fighter fatalities</th>
<th>Total fire fighters</th>
<th>Total fire units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time to control incident</th>
<th>Incident duration</th>
<th>Incident cause</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Release completed by</th>
<th>Contact number</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incident description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

---

© 2013 National Fire Protection Association

NFPA 1026
Media Advisory

Your Organization
12345 Your Street
City, State Zip Code

Contact: Name, Contact number

For immediate release: Day, Year

Advisory title

Who: Make your sentences brief, but provide complete information. List who will be at your event.

What: Describe event.

When: Check to make sure the date and time are accurate. Include special media parking, access information, etc. here if needed.

Include interesting event visuals or photo opportunities.

Where: Accurate address.

Why: Succinctly state the reason for your event.
News Release

Your Organization
12345 Your Street
City, State Zip Code

Contact: Name, Contact number

For immediate release: Day, Year

News release title

(CITY, State) — Your city is written in all caps followed by the state. Capitalize only the first letter of your state (e.g., Kansas is Kan.). Refer to the Associated Press Stylebook for writing style information, as news releases are written according to this guide. AP Stylebooks are available at most bookstores. The body of a news release is commonly double-spaced.

A common news release paragraph indentation is 10 spaces. Write the body of your news release using an inverted pyramid style; in other words, put the most important information first.

Try to keep news releases to one page in length. End a one-page news release with three centered pound signs. If your news release is two pages, for example, place “more” at the bottom or “over” if you are printing on the back of a page.

# # #
4.4.7* Coordinate Incident Action Plan priorities and strategic objectives with jurisdictional EOC/MAC Groups, when the EOC/MAC Groups exist, given an Incident situation, resources, situation status information, and operational procedures, so that coordination of Incident Action Plan strategic priorities among all jurisdictional response entities (multiple incident commanders, Area Commands) are established and resource priorities are prioritized to accomplish tactical and support tasks, IAPs and/or strategic priorities are modified as dictated by resource availability, and command and general staff are notified of necessary changes to the IAP.

(A) Requisite Knowledge: ICS organization structure expansion procedures, EOC/ICS interface policies and procedures, communication skills.

(B) Requisite Skills: Communications by radio and other means, accountability procedures, determination of the impact of resource availability to support strategic and tactical operations specific for the incident.

A 4.4.7 Commonly Used MACS Nodes

There are a number of MACS Nodes within a MACS structure, including dispatch and 911 call centers, EOCs, and MAC Groups. The following provides a description of each:

- Agency Dispatch and 911 Call Centers: Dispatch centers have the authority to request resources from immediate mutual aid agencies to support the concepts of dispatching the closest forces and total mobility. These centers have staff that routinely manage emergency calls from the public and communicate with emergency management/response personnel. They may serve as a primary coordination and support element of the MACS for an incident until other elements of the MACS are formally established. Generally, the dispatch center is the only part of the MAC System that is in place all the time.

- Emergency Operations Centers (EOCs) and Other Facilities: Emergency Operations Centers (EOCs) may be organized by major discipline (e.g., fire, law enforcement, or emergency medical services); by emergency support function (e.g., transportation, communications, public works and engineering, or resource support); by jurisdiction (e.g., city, county, or region); or, more likely, by some combination thereof. The physical size, staffing, and equipping of an EOC will depend on the size of the jurisdiction, availability of resources, and anticipated incident management workload. Regardless of its specific organizational structure, an EOC should include the following core functions: coordination; communications; resource allocation and tracking; and information collection, analysis, and dissemination.

- Department Operations Centers (DOCs): Often, agencies within a political jurisdiction will establish coordination, communications, control, logistics, etc., at the department level for conducting overall management of their assigned resources. Governmental departments (or agencies, bureaus, etc.) or private organizations may also have DOCs that serve as the interface between the ongoing operations of that organization and the emergency operations it is supporting. The DOC may directly support the incident and receive information relative to its operations. In most cases, DOCs are physically represented in a combined agency EOC by authorized agent(s) for the department or agency.

- MAC Groups: Typically, Agency Administrators/Executives, or their designees, who are authorized to represent or commit agency resources and funds are brought together to form MAC Groups. For clarity, an Agency Administrator/Executive is the official responsible for administering policy for an agency or jurisdiction. Personnel assigned to an EOC who meet the criteria for participation in a MAC Group may be asked to fulfill that role. A MAC Group can provide coordinated decision making and resource allocation among cooperating agencies, and may establish the priorities among incidents, harmonize agency policies, and provide strategic guidance and direction to support incident management activities. MAC Groups may also be known as multiagency committees, emergency management committees, or as otherwise defined by the system. A MAC Group does not have any direct incident involvement and will often be located some distance from the incident site(s). In many cases a MAC Group can function virtually such as via teleconference or video teleconferencing to accomplish its assigned tasks.

Multiagency Coordination Groups are often confused with Area Command. The functions of the two are quite different. Area Command oversees management coordination of the incident(s). In contrast, MAC Groups coordinate support and have no direct incident authority or responsibility. As Table 1 illustrates, there are several significant differences between a MAC Group and an Area Command.

| Table 1 | Differences Between a MAC Group and Area Command |

Printed on 2/23/2012
Table 1 illustrates, there are several significant differences between a MAC Group and an Area Command.

****Insert Table 1 Here****

Figure 1 - Figure 1 illustrates MAC Group relationships to Area Commands, the Incident and Unified Commands, and Agency Administrators/Executives that staff and support a MAC Group.

****Insert Artwork here****

Table 1

**Substantiation:** The addition of the new JPR reflects additional essential job task responsibilities.

**Committee Meeting Action:** Accept
Table 1: Differences Between a MAC Group and Area Command

<table>
<thead>
<tr>
<th>A MAC Group…</th>
<th>An Area Command…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion of the off-site coordination and support systems.</td>
<td>Expansion of the on-incident command function of the Incident Command System (ICS).</td>
</tr>
<tr>
<td>Members are agency administrators or designees from the agencies involved or heavily committed to the incidents.</td>
<td>Members are the most highly skilled incident management personnel</td>
</tr>
<tr>
<td>Organization generally consists of the MAC Group (agency administrators), MAC Group Coordinator and an intelligence and information support staff.</td>
<td>Organization generally consists of an Area Commander, Area Command Planning Chief, an Area Command Logistics Chief, and an Area Command Air Operations Coordinator.</td>
</tr>
<tr>
<td>Is the agency administrator (line officer) or designee.</td>
<td>Is delegated authority for specific incident(s) from the agency administrator(s).</td>
</tr>
<tr>
<td>Allocates and reallocates critical resources through the dispatch system by setting incident priorities.</td>
<td>Assigns and reassigns critical resources allocated to them by MAC or the normal dispatch system organization.</td>
</tr>
<tr>
<td>Coordinated agency administrator level decisions on issues that affect multiple agencies.</td>
<td>Ensure that incident objectives and strategies are complimentary between Incident Management Teams under their supervision.</td>
</tr>
</tbody>
</table>
1031- Log #1 PQU-FIS  

Submitter: Robert Bourke, Northeastern Regional Fire Code Development Committee  
Recommendation:  
Substantiation:
Add a new chapter 4 on Company Level Inspector and renumber the remaining.

Chapter 4 Company Level Inspector

4.1* General. The Company Level Inspector shall meet the job performance requirements defined in Sections 4.2 through 4.4. In addition, the Company Level Inspector shall meet the requirements of Section 4.2 of NFPA 472.

4.2* Administration. This duty involves the preparation of inspection reports, handling of complaints, and maintenance of records, as well as maintenance of an open dialogue with the fire prevention staff, according to the following job performance requirements.

4.2.1 Prepare inspection reports, given agency policy and procedures, and observations from an assigned field inspection, so that the report is clear and concise and reflects the findings of the inspection in accordance with the applicable codes and standards and the policies of the jurisdiction.

(A) Requisite Knowledge. Applicable codes and standards adopted by the jurisdiction and policies of the jurisdiction.

(B) Requisite Skills. The ability to conduct a field inspection, apply codes and standards, and communicate orally and in writing.

4.2.2* Recognize the need for a permit, given a situation or condition, so that the need for permits are communicated to the building owner and fire prevention staff.

(A) Requisite Knowledge. Permit policies of the jurisdiction and the rationale for the permit.

(B) Requisite Skills. The ability to communicate orally and in writing.

4.2.4* Investigate basic complaints, given a reported situation or condition, so that complaint information is recorded, the findings are forwarded to the fire prevention staff, and the complaint is resolved.

(A) Requisite Knowledge. Applicable policies of the jurisdiction.

(B) Requisite Skills. The ability to apply basic fire prevention principles, communicate orally and in writing, recognize problems, forward to appropriate fire prevention personnel when needed, and resolve complaints.

4.2.5* Identify basic fire and life safety hazards, given a fire protection, fire prevention, or life safety issue, so that the applicable action is taken per department policy.

(A) Requisite Knowledge. General fire and life safety hazards. Applicable policies of the jurisdiction.

(B) Requisite Skills. The ability to apply policies.

4.3 Field Inspection. This duty involves fire and life safety inspections of existing structures and properties for basic fire and life safety hazards, according to the following job performance requirements.

4.3.1 Identify the basic fire and life safety hazards of an occupancy.

(A) Requisite Knowledge. Basic fire and life safety hazards by occupancy type, Occupancy classification types; operational features; and fire hazards presented by various occupancies.

(B) Requisite Skills. The ability to make observations and correct basic violations, forward observations and hazards to the fire prevention staff.

4.3.3* Inspect means of egress elements, given observations made during a field inspection of an existing building, so that means of egress elements are maintained free of obstructions, easily operated, not locked and deficiencies are identified, documented, and reported in accordance with the applicable policies of the jurisdiction.

(A) Requisite Knowledge. Applicable knowledge related to means of egress elements, maintenance requirements of egress elements,

(B) Requisite Skills. The ability to observe and recognize problems, make basic decisions related to means of egress.

4.3.5* Determine the operational readiness of existing fixed fire suppression systems, given field observations, so that the systems are in an operational state and deficiencies are identified, documented, and reported in accordance with the policies of the jurisdiction.

(A) Requisite Knowledge. A basic understanding of the components and operation of fixed fire suppression systems.

(B) Requisite Skills. The ability to observe, recognize problems, and report problems.

4.3.6* Determine the operational readiness of existing fire detection and alarm systems, given field observations, so that the systems are in an operational state, and deficiencies are identified, documented, and reported in accordance with the policies of the jurisdiction.

(A) Requisite Knowledge. A basic understanding of the components and operation of fire detection and alarm systems and devices.

(B) Requisite Skills. The ability to observe, recognize problems, and report problems.

4.3.7* Determine the operational readiness of existing portable fire extinguishers, given field observations, so that the
equipment is in an operational state, and deficiencies are identified, documented, and reported in accordance with the policies of the jurisdiction.

(A) **Requisite Knowledge.** A basic understanding of portable fire extinguishers, including their components.

(B) **Requisite Skills.** The ability to observe, recognize problems, and report problems.

4.3.8* Recognize hazardous conditions involving equipment, processes, and operations, given field observations, so that the equipment, processes, or operations are conducted, maintained and in accordance with the applicable policies of the jurisdiction.

(A) **Requisite Knowledge.** Practices and techniques of code compliance inspections, fire behavior, fire prevention practices, ignition sources, safe housekeeping practices, and classification of hazardous materials.

(B) **Requisite Skills.** The ability to observe, communicate, apply codes and standards, recognize problems, and make decisions.

4.3.11* Inspect emergency access for an existing site, given field observations, so that the required access for emergency responders is maintained and deficiencies are identified, documented, and corrected in accordance with the applicable policies of the jurisdiction.

(A) **Requisite Knowledge.** Policies of the jurisdiction, and emergency access and accessibility requirements.

(B) **Requisite Skills.** The ability to identify the emergency access requirements observe, and report deficiencies per the policies of the jurisdiction.

4.3.13* Verify code compliance for incidental storage, handling, and use of hazardous materials, given field observations, so that applicable deficiencies are identified, documented, and reported in accordance with the applicable policies of the jurisdiction.

(A) **Requisite Knowledge.** Classification, properties, labeling, transportation, storage, handling, and use of hazardous materials.

(B) **Requisite Skills.** The ability to observe, communicate, apply polices, recognize problems, and make decisions.

4.3.14 Recognize a hazardous fire growth potential in a building or space, given field observations, so that the hazardous conditions are identified, documented, and reported in accordance with the policies of the jurisdiction.

(A) **Requisite Knowledge.** Basic fire behavior; flame spread and smoke development ratings of contents, interior finishes, building construction elements, decorations, decorative materials, and furnishings; and safe housekeeping practices.

(B) **Requisite Skills.** The ability to observe, communicate, apply codes and standards, recognize hazardous conditions, and make decisions.

4.4 Plans Review. There are no plan review job performance requirements for Company Level Inspector.

**Substantiation:** As chair of the NFPA TC on Deployment and Organization of Fire Prevention Activities during the last meeting the committee voted to submit a proposal to add a new chapter dealing with Company Level Inspectors. Many communities have been using company level inspectors to perform inspections for years. Company level inspectors need to be recognized in NFPA 1031 and there needs to be jpr's established to ensure that some level of training is provided to adequately perform these inspections. As part of the drafting of NFPA 1730 we wish to add a reference to company level inspector and would like to have them included as part of NFPA 1031.

**Committee Meeting Action:** Reject

**Committee Statement:** Refer to A.4.1 The intent of the committee is that individuals at the Fire Inspector I level perform basic fire safety inspections. Individuals at this level can include fire fighters who are normally assigned to fire suppression or other individuals whose primary job responsibilities are not fire inspection.

---

**Submitter:** Technical Committee on Fire Inspector Professional Qualifications,

**Recommendation:** Review entire document to: 1) Update any extracted material by preparing separate proposals to do so, and 2) review and update references to other organizations documents, by preparing proposal(s) as required.

**Substantiation:** To conform to the NFPA Regulations Governing Committee Projects.

**Committee Meeting Action:** Accept

---

Printed on 2/23/2012
This standard identifies the minimum job performance requirements (JPRs) for fire inspectors and plan examiners. Therefore, this standard identifies the minimum job performance requirements (JPRs) for fire inspectors and plan examiners.

1.2 Purpose. The purpose of this standard is to specify the minimum job performance requirements for service serving as a fire inspector and plan examiner.

Substantiation: Consistency within Pro-Qual Project.

Committee Meeting Action: Accept

2.4 References for Extracts in Mandatory Sections.


Substantiation: Updating reference material.

Committee Meeting Action: Accept

3.3.10* Means of Egress. A continuous and unobstructed way of travel from any point in a building or structure to a public way consisting of three separate and distinct parts: (1) the exit access, (2) the exit, and (3) the exit discharge. [101, 2009]

A.3.3.10 Means of Egress. A means of egress comprises the vertical and horizontal travel and includes intervening room spaces, doorways, hallways, corridors, passageways, balconies, ramps, stairs, elevators, enclosures, lobbies, escalators, horizontal exits, courts, and yards. [101, 2009]

Substantiation: Updating reference material.

Committee Meeting Action: Accept
The Fire Inspector I is responsible for inspecting public, commercial, and residential structures for compliance with applicable fire codes.

The Fire Inspector I is responsible for the following:

1. Inspects public, commercial, and residential structures to ensure compliance with jurisdiction, state, and federal fire codes and ordinances
2. Conducts inspections of fire hazard complaints and underground storage tanks for compliance with jurisdiction, state, and federal regulations
3. Identifies corrective actions that must be made to bring properties into compliance with applicable fire codes, laws, regulations, and standards
4. Assists citizens and other agency personnel with code interpretations and information when requested, prepares written documents, and maintains files
5. Issues citations for fire code violations
6. Provides court testimony regarding fire code violations

The incumbent determines if structures are in compliance with jurisdiction, state, and federal fire codes and ordinances. The incumbent establishes performance measures for subordinates and evaluates employee performance against those standards or measures.

The Fire Inspector I should have the following minimum qualifications:

1. Position requires conducting fire safety programs and a working knowledge of methods of fire prevention, fire protection systems, and building construction.
2. Position requires effective oral and written communication skills. Must be able to make mathematical calculations.
3. Associate's degree in Fire Science or equivalent.
4. Driver's license and inspector certification.

Any work-related experience resulting in acceptable proficiency levels in the minimum qualifications is an acceptable substitute for the specified education and experience requirements listed in (3) and (4):

The Fire Inspector II is responsible for inspecting public, commercial, and residential structures for compliance with applicable fire codes.

The Fire Inspector II is responsible for the following:

1. Inspects and evaluates public, commercial, and residential structures to ensure compliance with jurisdiction, state, and federal fire codes and ordinances and reviews plans for compliance with fire codes
2. Conducts inspections of complex fire hazard complaints and underground storage tanks for compliance with jurisdiction, state, and federal regulations
3. Identifies corrective actions that must be made to bring properties into compliance with applicable fire codes, laws, regulations, and standards
4. Assists citizens and other agency personnel with code interpretations and information when requested, prepares written documentation, creates forms and checklists addressing key inspection issues, and designs and maintains filing system for division
5. Issues citations for fire code violations and provides court testimony regarding fire code violations
6. Assists and instructs lower-level inspectors in code application, interpretation, and office procedures

The incumbent determines if structures are in compliance with jurisdiction, state, and federal fire codes and ordinances. The incumbent establishes performance measures for subordinates and evaluates employee performance against those standards or measures. He or she also recommends modifications in the policies and procedures of the division.

The Fire Inspector II should have the following minimum qualifications:

1. Knowledge: Position requires conducting fire safety programs and a working knowledge of methods of fire prevention, fire protection systems, and building construction:
Position requires effective oral and written communication skills. Must be able to make mathematical calculations.

Bachelor's degree in Fire Protection, Fire Science, or equivalent.

Four years of experience, including one year of lead responsibility in fire inspection and/or fire prevention.

Driver's license and inspector certification.

Any work-related experience resulting in acceptable proficiency levels in the minimum qualifications is an acceptable substitute for the specified education and experience requirements listed in (3) and (4).

The Fire Inspector III is responsible for the fire prevention and fire inspection activities of the jurisdiction. The Fire Inspector III serves as a manager and directs all activities of the division and integrates the jurisdiction's goals into the day-to-day operation of the division.

The Fire Inspector III is responsible for the following:

1. Directs the preparation and submittal of the division's budget and allocates its resources in accordance with policy to ensure maximum performance

2. Serves as the division's liaison with various jurisdiction, state, and federal government agencies, as well as local organizations and groups

3. Recommends and implements changes in division policy and operations to improve efficiency and effectiveness and prepares and recommends updates in codes and standards for the jurisdiction

4. Directly supervises all employees assigned to the division

5. Indirectly coordinates through an established chain of command all fire department services, programs, and activities relating to fire prevention

6. Establishes realistic and obtainable goals for subordinates through a team process and ensures successful attainment of those goals through appropriate training and assigned accountability

7. Serves as a highly visible representative of the fire department and the fire service to the jurisdiction at large through involvement in various community organizations and events relating to fire prevention

The incumbent is required to make decisions relating to employee selection and appointment, fire code development and interpretations, and divisional administrative matters.

The Fire Inspector III should have the following minimum qualifications:

1. Position requires thorough knowledge of the principles, practices, and techniques of modern suppression systems and fire prevention practices and must also possess the ability to apply this knowledge to fire prevention laws and ordinances; principles of public administration with reference to code development, enforcement, and personnel administration; and principles of jurisdiction budget preparation and finance.

2. Position requires the ability to provide effective leadership and to plan and assign, directing the work of subordinates; plan, initiate, and carry out long-term programs in the division and relate the division's programs with other jurisdictional programs; goals, and objectives; speak and deal tactfully and effectively with the people with whom he or she comes in contact; fairly and effectively evaluate the performance of subordinates; communicate orally and in writing to analyze the concepts necessary for accomplishment of required written and oral records and reports; and exhibit an ability to positively represent the department and jurisdiction in the community at large.

3. Minimum of a bachelor's degree (master's degree preferred) with concentration in Fire Science, Public Administration, or related fields, supplemented by specialized training sufficient to meet the qualifications for certification as a master fire inspector.

4. Ten years' experience as a full-time employee with a career department with a strong background in fire prevention and code enforcement; must also have demonstrated technical competence in the areas of fire suppression system design and development and code administration.

5. Driver's license and master inspector certification.

Note that the statements in (1) through (5) are intended to describe the general nature and level of work being performed and are not intended to be an exhaustive list of all responsibilities, duties, and skills that can be required.

The Plan Examiner I is responsible for examining building plans, fire protection system plans, and specifications for compliance with applicable fire codes and laws.

The Plan Examiner I is responsible for the following:

1. Reviews and evaluates routine building plans, site plans, and fire protection system plans in terms of fire code and building code life safety criteria

2. Receives and responds to requests for information and technical assistance from architects, engineers, and
developers on design criteria for various occupancies and industrial processes
(4) Attends meetings with architects, developers, and jurisdiction staff to discuss plan review requirements and
procedures
(5) Assists in preparation of variances and appeals before the Building Standards Commission

6.4.3 Typical Decisions. The incumbent evaluates and approves fire protection system plan submittals and makes
recommendations on alternate methods or materials when appropriate. The incumbent evaluates and makes
recommendations on requests for variance to the fire codes and local laws pertaining to fire safety.

6.4.4 Minimum Qualifications. The Plan Examiner I should have the following minimum qualifications:
(1) Knowledge: Position requires a working knowledge of fire and building codes and laws; basic knowledge of the
principles, techniques, and design of fixed fire suppression and detection systems; and the ability to read and interpret
plans and blueprints:
(2) Skills: Position requires effective oral and written communication skills:
(3) Education: Associate's degree (bachelor's degree preferred) in Fire Protection Technology or related field:
(4) Experience: One year of experience in fire protection:
(5) Licenses/Certificates: Driver's license, certification as an inspector within 12 months of hire date, and certification in
fire alarms and automatic sprinklers within 18 months of hire date:
Any work-related experience resulting in acceptable proficiency levels in the minimum qualifications is an acceptable
substitute for the specified education and experience requirements listed in (3) and (4):

6.5 Job Title: Plan Examiner II:

6.5.1 Basic Function: The Plan Examiner II is responsible for examining building plans, fire protection system plans,
and specifications for compliance with applicable fire codes and laws.

6.5.2 Principal Responsibilities: The Plan Examiner II is responsible for the following:
(1) Responds to fire code, law, and life safety inquiries from citizens
(2) Reviews and evaluates routine and detailed building plans, site plans, and fire protection system plans in terms of
fire code and building code life safety criteria
(3) Receives and responds to requests for information and technical assistance from architects, engineers, and
developers on design criteria for various occupancies and industrial processes
(4) Attends meetings with architects, developers, and jurisdiction staff to discuss plan review requirements and
procedures
(5) Assists in preparation of variances and appeals before the Building Standards Commission and prepares and
authenticates the division's documents
(6) Assists and instructs lower-level plan reviewers in code application, interpretation, and office procedures

6.5.3 Typical Decisions. The incumbent evaluates and approves fire protection system plan submittals and makes
recommendations on alternate methods or materials when appropriate. The incumbent evaluates and makes
recommendations on requests for variance to the fire codes and local laws pertaining to fire safety.

6.5.4 Minimum Qualifications. The Plan Examiner II should have the following minimum qualifications:
(1) Knowledge: Position requires a working knowledge of fire and building codes and laws; basic knowledge of the
principles, techniques, and design of fixed fire suppression and detection systems; the ability to read and interpret plans
and blueprints; and the ability to establish performance measures for subordinates and evaluate employee performance
against those standards or measures:
(2) Skills: Position requires effective oral and written communication skills:
(3) Education: Associate's degree (bachelor's degree preferred) in Fire Protection Technology or related field:
(4) Experience: One year of experience in fire protection:
(5) Licenses/Certificates: Driver's license, certification as an inspector within 12 months of hire date, and certification in
fire alarms and automatic sprinklers within 18 months of hire date:
Any work-related experience resulting in acceptable proficiency levels in the minimum qualifications is an acceptable
substitute for the specified education and experience requirements listed in (3) and (4):

Note that the statements in (1) through (5) are intended to describe the general nature and level of work being
performed and are not intended to be an exhaustive list of all responsibilities, duties, and skills that can be required:
Annex D and text to read as Annex C; Annex E and text to read as Annex D, Annex F and text to read as Annex E.

Substantiation: Annex C Job descriptions are considered by the technical committee as being archaic.
Committee Meeting Action: Accept
Submitter: Technical Committee on Fire Inspector Professional Qualifications,
Recommendation: Revise text to read as follows:
F.3 References for Extracts in Informational Sections.
Substantiation: Update reference material.
Committee Meeting Action: Accept

Submitter: Technical Committee on Fire Inspector Professional Qualifications,
Recommendation: Revise text to read as follows:
A.6.3.9 As determined by the jurisdiction, individuals should be able to demonstrate knowledge of the codes and standards related to the installation requirements and acceptance testing requirements for an integrated fire protection and life safety system, such as elevator recall upon activation of a fixed fire alarm system or activation and operation of a smoke removal (HVAC) system upon activation of a fire detector and/or suppression system, or other integrated fire protection systems of a similar nature in a structure in accordance with the applicable building, mechanical, and/or fire code of the jurisdiction. Test protocols might include contractors pre-test documentation, test criteria from codes and standards, and other specific test criteria as might be developed by the system designer. (See NFPA 3, Recommended Practice on Commissioning and Integrated Testing of Fire Protection and Life Safety Systems for additional information.
Annex F Informational References
E.1.1 NFPA Publications
Substantiation: This is a reference to a newly published document that the TC believes to be pertinent to acceptance testing requirements for an integrated fire protection and life safety systems.
Committee Meeting Action: Accept
Conduct an exterior survey, given standard equipment and tools, so that evidence is identified and preserved, fire damage is interpreted, hazards are identified to avoid injuries, accessibility to the property is determined, and all potential means of ingress and egress are discovered.

The inclusion of this identifier links the section 4.2.2 to the wording contained within 4.2.3 and makes this area of identifying evidence uniform throughout this section. In 4.2.2 it is not made clear that evidence has to be identified first, just that it has to be preserved—without identification it is difficult to ascertain what is to be preserved.

Committee Meeting Action: Accept in Principle
Revise text to read as follows:
Conduct an exterior survey, given standard equipment and tools, so that evidence is identified and preserved, fire damage is interpreted, hazards are identified to avoid injuries, accessibility to the property is determined, and all potential means of ingress and egress are discovered.

Committee Statement: The committee agrees with the concept but clarified the intent.

---

The fire investigator shall apply all elements of the systematic approach and a scientific method as the operating analytical processes throughout the investigation and for the drawing of conclusions.

There is nothing in any field of science that is defined as "The Scientific Method." Rather, the field of science in general, and forensic science in particular, follows a systematic approach and a scientific method in reaching conclusions. By the wording in this section of NFPA 1033, the document is holding fire investigators to a standard that truly does not exist in the field of science.

The American Heritage Dictionary defines "scientific method" as "The principles and empirical processes of discovery and demonstration considered characteristic of or necessary for scientific investigation, generally involving the observation of phenomena, the formulation of a hypothesis concerning the phenomena, experimentation to demonstrate the truth or falseness of the hypothesis, and a conclusion that validates or modifies the hypothesis." This is the method employed by fire investigators.

Note: Supporting material is available for review at NFPA Headquarters.

Committee Meeting Action: Reject
Committee Statement: The definition of the "scientific method" can be found in the NFPA Preferred Definition.
Duties shall include using proper physical and legal procedures to **retain, identify, document, collect and preserve** evidence required within the investigation. The job of the fire investigator is not simply to "retain" evidence. Rather, our responsibility is to adhere to nationally recognized guidelines, methods and procedures for the identification, documentation, collection and preservation of evidence for laboratory analyses, further investigations and court proceedings, including but not limited to NFPA 921 and American Society for Testing and Materials standards E860, E1188 and E1459. Establishing this JPR as simply to "retain" evidence creates the opportunity for misunderstanding and failure of the investigator to adhere to the numerous rules, standards, and guidelines that must be followed through all stages of the life of that evidence. Note: Supporting material is available for review at NFPA Headquarters.

The authority having jurisdiction shall conduct a thorough background and character investigation prior to accepting an individual as a candidate for employment and/or certification as a fire investigator. Not all fire investigators, working for AHJ have a certification in fire investigation. The duties of fire investigations were added to their job descriptions as fire inspectors and a certification is not required, in fire investigation, by the AHJ. It is equally important that all fire investigators, certified or not, go through a thorough background and character investigation. (Example: Scottsdale, AZ)

The investigator shall have and maintain at a minimum an up-to-date tested basic knowledge of the following topics beyond the high school level at a post-secondary education level:

- **Substantiation**: It is important for all fire investigators to comprehend the topics as stated in NFPA 1033 Section 1.3.8. We can be assured that the fire investigator has understood the subject matter and has a basic knowledge of the topic, beyond the high school level, if testing is a required part of this continuing educational process.

Committee Meeting Action: **Accept**

Committee Meeting Action: **Reject**

Committee Meeting Action: **Reject**

Committee Meeting Action: **Reject**
1033-47 Log #6 PQU-FIV
Final Action: Reject

(4.3.1(A))

Submitter: Lancelot E. Furber, Donan Engineering Co., Inc.

Recommendation: Add new text to read as follows:
Concurrently used symbols and legends that clarify the diagram, types of evidence and patterns that need to be documented, and formats for diagramming the scene. (Annex ?)

Substantiation: I have seen different "commonly used symbols" being used for the identification of the same item and/or location. An Annex should be added, to NFPA 1033 and/or NFPA 921, to define and identify the commonly used symbols, that are acceptable to our industry, involving fire investigations and scene documentation.

Committee Meeting Action: Reject
Committee Statement: The submitter offers no suggested language for the annex.

1033-57 Log #7 PQU-FIV
Final Action: Accept in Principle in Part

(A.4.1.2)

Submitter: Lorne L. Brunner, EFI Global, Inc.

Recommendation: Add #7 Avoid presumption (IAW 921 4.3.7).
#8 Confirm and select final hypothesis (IAW 921 F.43).

Substantiation: The 1033 should be consistent with the 921.

Committee Meeting Action: Accept in Principle in Part
Add text to read as follows:
#7 Avoid presumption (IAW 921 4.3.7);
#8 Confirm and select final hypothesis (IAW 921 F.43).

Committee Statement: The new language conforms to the definition of scientific method found in NFPA 921, Guide for Fire and Explosion Investigations.

1033-42 Log #8 PQU-FIV
Final Action: Reject

(4.2.2)

Submitter: Monty Messenger, Calif. Dept. of Forestry & Fire Protection

Recommendation: Add text to read as follows:
"Conduct an exterior perimeter survey,..."

Substantiation: Not all fires are structure fires as this section seems to imply. I feel the exterior perimeter survey to be more accurate at what we do as fire investigators. We are also looking at areas other than the fire damaged ones to correlate, if any, involvement of other influences or forces in the cause of the fire.

Committee Meeting Action: Reject
Committee Statement: The committee believes the current wording is adequate and is not limited to structure fires.

1033-44 Log #9 PQU-FIV
Final Action: Reject

(4.2.3)

Submitter: Monty Messenger, Calif. Dept. of Forestry & Fire Protection

Recommendation: Revise text to read as follows:
"Conduct an (interior) inner perimeter survey,..."

Substantiation: Not all fires are structure fires as this section seems to imply. I feel the inner perimeter survey language more appropriate to all fires (wildland, vehicle, and structure). The perimeter can be further defined if needed (such as the external boundary of the structure walls) for clarification purposes, depending on the fire type.

Committee Meeting Action: Reject
Committee Statement: The committee believes the current wording is adequate and is not limited to structure fires.
### 1033-4 Log #10 PQU-FIV

**Final Action:** Reject

**Submitter:** Michael Grubowski, HSA Engineers & Scientists

**Recommendation:** Revise text to read as follows:

- The fire investigator shall have a high school diploma or equivalent.
- The fire investigator shall have as a minimum a Bachelors degree from an accredited college or university.

**Substantiation:** None given.

**Committee Meeting Action:** Reject

**Committee Statement:** Submitter submitted no substantiation.

### 1033-58 Log #11 PQU-FIV

**Final Action:** Accept

**Submitter:** Daniel P. Heenan, US Bureau of Alcohol, Tobacco, Firearms & Explosives

**Recommendation:** Add new text to read as follows:

For additional information regarding evidence collection methods see, ASTM E 860, Standard Practice for Examining and Preparing items that are or may Become Involved in Criminal or Civil Litigation.

**Substantiation:** Two other ASTM E standards are referenced in the annex of this standard. I believe that the addition of ASTM E 860 will assist the fire investigator in better evidence collection techniques and allow the investigators to be familiar with industry standards.

**Note:** Supporting material is available for review at NFPA Headquarters.

**Committee Meeting Action:** Accept

### 1033-59 Log #12 PQU-FIV

**Final Action:** Accept

**Submitter:** Daniel P. Heenan, US Bureau of Alcohol, Tobacco, Firearms & Explosives

**Recommendation:** Add new text to read as follows:

For additional information regarding evidence collection methods see, ASTM E 1188, Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator.

**Substantiation:** Two other ASTM E standards are referenced in the annex of this standard. I believe that the addition of ASTM E 1188 will assist the fire investigator in better evidence collection techniques and allow the investigators to be familiar with industry standards.

**Note:** Supporting material is available for review at NFPA Headquarters.

**Committee Meeting Action:** Accept
Submitter: Daniel P. Heenan, US Bureau of Alcohol, Tobacco, Firearms & Explosives

Recommendation: Revise text to read as follows:

(4) Thermometry Understanding Various Temperature Scales

Substantiation: The word "thermometry" is not a commonly used word and can have the tendency to confuse the readers of the standard. Using commonsensical wording such as "Understanding various temperature scales" will potentially make the standard easier to understand for the end-user, that being the fire investigator.

Committee Meeting Action: Reject

Committee Statement: The committee believes that the term “Thermometry,” as defined in the Merriam-Webster’s Collegiate Dictionary, 11th edition, “the measurement of temperature,” is broader than merely "understanding various temperature scales," but also infers the science, methodology, technology, instrumentalities, and practice of temperature measurement.
The investigator shall have and maintain at a minimum an up-to-date knowledge of the following topics, reflected through continuing education beyond the high school level: at a post secondary level:

Substantiation: Common definitions and interpretations of "post secondary education" generally refer to college level courses. By deleting "at a post secondary level and adding "reflected through continuing education", I believe that it will better explain to the fire investigator that he/she needs to continue learning but will remove the concept that the learning must be at a college course level. Continuing Education is a common phrase used by many in the public and private sector and will more readily explain to the fire investigator what he/she needs to accomplish.

Committee Meeting Action: Accept in Principle

Change the texts order and numbering of the current sections 1.3.7; A.1.3.7; 1.3.8; and A.1.3.8 as indicated.

A.1.3.8 Fire investigation technology and practices are changing rapidly. It is essential for an investigator's performance and knowledge to remain current. It is recommended that investigators be familiar with the technical information

A.1.3.8 The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level: at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools
14. Fire protection systems
15. Evidence documentation, collection, and preservation
16. Electricity and electrical systems

Committee Statement: While the committee agrees with the proposal, clarification on existing material within that section was also edited and modified. See Committee Action in Committee Proposal 1033- (Log #CP5).
The intent of this standard applies to all fire investigation, including outside, wildland, (motor) vehicle, and structural fires.

The intent of the committee was not to limit the definition of vehicle.
The fire investigator shall remain current with investigation methodology, fire protection technology, and code requirements by attending workshops, seminars, (webinars and webcasts), and/or through professional publications and journals.

Because of the advancement of technology in our society, training and education is also being delivered through the internet. A popular program available to fire investigators in an internet environment is the CFItrainer.net program. Adding the words webinars and webcasts in the proposed text will introduce internet verbiage for the reader/student resulting in an increase awareness of the availability of training and education.

Committee Meeting Action: Accept in Principle
Change the texts order and numbering of the current sections 1.3.7; A.1.3.7; 1.3.8; and A.1.3.8 as indicated. Add a definition of Fire Investigation Technology to Chapter 3.

The fire investigator shall remain current with investigation methodology, fire protection technology, and code requirements in the topics listed in section 1.3.7 by attending formal education courses, workshops and seminars and/or through professional publications and journals.

Fire investigation technology and practices are changing rapidly. It is essential for an investigator’s performance and knowledge to remain current. It is recommended that investigators be familiar with the technical information.

The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level: at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools
14. Fire protection systems
15. Evidence documentation, collection, and preservation
16. Electricity and electrical systems

Basic up-to-date information on these topics can be found in the current edition of NFPA 921 Guide for Fire and Explosion Investigations. NFPA 921 is written on a basic level for competency in fire and explosion investigation and updated on a three year cycle “to establish guidelines and recommendations for the safe and systematic investigation or analysis of fire and explosion incidents” and “is designed to produce a systematic, working framework or outline by which effective fire and explosion investigation and origin and cause analysis can be accomplished.” As stated in NFPA 921 “[i]t is not intended as a comprehensive scientific or engineering text... many scientific and engineering concepts are presented within the text, the user is cautioned that these concepts are presented at an elementary level and additional technical sources, training, and education may often need to be utilized in an investigation. The documents or portions thereof listed in this [document] are referenced within this guide and shall be considered part of the requirements of this document.”

Committee Statement: The committee believes that internet and web-based training are already included in 1033- (Log #CP5), 1.3.7. Additionally, clarification on existing material within that section was also edited and modified. See Committee Action in Committee Proposal 1033- (Log #CP5).
<table>
<thead>
<tr>
<th>Log #</th>
<th>Submitter</th>
<th>Recommendation</th>
<th>Substantiation</th>
<th>Committee Meeting Action</th>
<th>Committee Statement</th>
</tr>
</thead>
</table>
| 1033-61 | James Christiansen, Columbia River Fire and Rescue | Revise text to read as follows:  
International Association of Arson Investigators, (300 S. Broadway, Suite 100, St. Louis, MO 63102) (2111 Baldwin Avenue, Suite 203, Crofton, MD 21114) | The proposed text reflects the current mailing address for the International Association of Arson Investigators. | Accept                   | See Committee Action in Committee Proposal 1033- (Log #CP5). |
| 1033-11 | Michael P. McGreal, Firedyne Engineering, PC | Add new text as follows:  
1.3.8(14) Fire protection systems | The investigator must have and maintain an up-to-date basic knowledge of fire protection systems. This code change will parallel the new material on fire protection systems being added to the 2014 edition of NFPA 921. | Accept                   |                     |
Recommendation: Add a new chapter 4 on company Level Inspector and renumber the remaining.

Chapter 4 Company Level Inspector

4.1 General. The Company Level Inspector shall meet the job performance requirements defined in Sections 4.2 through 4.4. In addition, the Company Level Inspector shall meet the requirements of Section 4.2 of NFPA 472.

4.2 Administration. This duty involves the preparation of inspection reports, handling of complaints, and maintenance of records, as well as maintenance of an open dialogue with the fire prevention staff, according to the following job performance requirements.

4.2.1 Prepare inspection reports, given agency policy and procedures, and observation from an assigned field inspection, so that the report is clear and concise and reflects the findings of the inspection in accordance with the applicable codes and standards and the policies of the jurisdiction.

(A) Requisite Knowledge. Applicable codes and standards adopted by the jurisdiction and policies of the jurisdiction.

(B) Requisite Skills. The ability to conduct a field inspection, apply codes and standards, and communicate orally and in writing.

4.2.2* Recognize the need for a permit, given a situation or condition, so that the need for permits are communicated to the building owner and fire prevention staff.

(A) Requisite Knowledge. Permit policies of the jurisdiction and the rationale for the permit.

(B) Requisite Skills. The ability to communicate orally and in writing.

4.2.4* Investigate basic complaints, given a reported situation or condition, so that complaint information is recorded, the findings are forwarded to the fire prevention staff, and the complaint is resolved.

(A) Requisite Knowledge. General fire and life safety hazards. Applicable policies of the jurisdiction.

(B) Requisite Skills. The ability to apply policies.

4.3 Field Inspection. This duty involves fire and life safety inspections of existing structures and properties for basic fire and life safety hazards, according to the following job performance requirements.

4.3.1 Identify the basic fire and life safety hazards of an occupancy.

(A) Requisite Knowledge. Basic fire and life safety hazards by occupancy type, Occupancy classification types; operational features; and fire hazards presented by various occupancies.

(B) Requisite Skills. The ability to make observations and correct basic violations, forward observations and hazards to the fire prevention staff.

4.3.3* Inspect means of egress elements, given observations made during a field inspection of an existing building, so that means of egress elements are maintained free of obstructions, easily operated, not locked and deficiencies are identified, documented, and reported in accordance with the applicable policies of the jurisdiction.

(A) Requisite Knowledge. Applicable knowledge related to means of egress elements, maintenance requirements of egress elements,

(B) Requisite Skills. The ability to observe and recognize problems, make basic decisions related to means of egress.

4.3.5* Determine the operational readiness of existing fixed fire suppression systems, given field observations, so that the systems are in an operational state, and deficiencies are identified, documented, and reported in accordance with the policies of the jurisdiction.

(A) Requisite Knowledge. A basic understanding of the components and operation of fire detection and alarm systems and devices.

(B) Requisite Skills. The ability to observe, recognize problems, and report problems.

4.3.7* Determine the operational readiness of existing portable fire extinguishers, given field observations, so that the equipment is in an operational state, and deficiencies are identified, documented, and reported in accordance with the policies of the jurisdiction.

(A) Requisite Knowledge. A basic understanding of portable fire extinguishers, including their components.

(B) Requisite Skills. The ability to observe, recognize problems, and report problems.
4.3.8* Recognize hazardous conditions involving equipment, processes, and operations, given field observations, so that the equipment, processes, or operations are conducted, maintained and in accordance with the applicable policies of the jurisdiction.

(A) **Requisite Knowledge.** Practices and techniques of code compliance inspections, fire behavior, fire prevention practices, ignition sources, safe housekeeping practices, and classification of hazardous materials.

(B) **Requisite Skills.** The ability to observe, communicate, apply codes and standards, recognize problems, and make decisions.

4.3.11* Inspect emergency access for an existing site, given field observations, so that the required access for emergency responders is maintained and deficiencies are identified, documented, and corrected in accordance with the applicable policies of the jurisdiction.

(A) **Requisite Knowledge.** Policies of the jurisdiction, and emergency access and accessibility requirements.

(B) **Requisite Skills.** The ability to identify the emergency access requirements observe, and report deficiencies per the policies of the jurisdiction

4.3.13* Verify code compliance for incidental storage, handling, and use of hazardous materials, given field observations, so that applicable deficiencies are identified, documented, and reported in accordance with the applicable policies of the jurisdiction.

(A) **Requisite Knowledge.** Classification, properties, labeling, transportation, storage, handling, and use of hazardous materials.

(B) **Requisite Skills.** The ability to observe, communicate, apply polices, recognize problems, and make decisions.

4.3.14 Recognize a hazardous fire growth potential in a building or space, given field observations, so that the hazardous conditions are identified, documented, and reported in accordance with the policies of the jurisdiction.

(A) **Requisite Knowledge.** Basic fire behavior; flame spread and smoke development ratings of contents, interior finishers, building construction elements, decorations, decorative materials, and furnishings; and safe housekeeping practices.

(B) **Requisite Skills.** The ability to observe, communicate, apply codes and standards, recognize hazardous conditions, and make decisions.

4.4 **Plans Review.** There are no plan review job performance requirements for Company Level Inspector.

**Substantiation:** As chair of the NFPA TC on Deployment and Organization of Fire Prevention Activities during the last meeting the committee voted to submit a proposal to add a new chapter dealing with Company Level Inspectors. Many communities have been using company level inspectors to perform inspections for years. Company level inspectors need to be recognized in 1031 and there needs to be jpr's established to ensure that some level of training is provided to adequately perform these inspections. As part of the drafting of 1730 we wish to add a reference to company level inspector and would like to have them included as part of 1031.

**Committee Meeting Action:** Reject

**Committee Statement:** This proposal should not be part of NFPA 1033. Move to appropriate committee.
M. Dixon Robin, U.S. Dept. of Justice, Bureau of Alcohol, Tobacco, Firearms & Explosives

Recommendation: Revise text to avoid redundant topic listings:

1.3.8 The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

(1) Fire science
(2) Fire chemistry
(3) Thermodynamics
(4) Thermometry
(5) Fire dynamics
(6) Explosion dynamics
(7) Computer fire modeling
(8) Fire investigation
(9) Fire analysis
(10) Fire investigation methodology
(11) Fire investigation technology
(12) Hazardous materials
(13) Failure analysis and analytical tools

Substantiation: The problem with the list of required basic knowledge in this section is the redundancy among the listed topics. The list of required knowledge would be simpler should it eliminate some of this redundancy. Fire science is defined, per NFPA 921 (2011 edition), as "The body of knowledge concerning the study of fire and related subjects (such as combustion, flame, products of combustion, heat release, heat transfer, fire and explosion chemistry, fire and explosion dynamics, thermodynamics, kinetics, fluid mechanics, fire safety) and their interaction with people, structures, and the environment. Because NFPA 921 and NFPA 1033 are, by necessity, closely related, the documents should support one another and use the same terminology. "Fire science," the first subject under 1.3.8, actually incorporates the next five subjects -- 2) Fire chemistry, 3) Thermodynamics, 4) Thermometry, 5) Fire dynamics, and 6) Explosion dynamics -- according to the NFPA 921 definition. This makes the next five subjects redundant and they should therefore be eliminated from this listing.

Committee Meeting Action: Reject

Committee Statement: The committee does not believe that fire chemistry, thermodynamics, thermometry, fire dynamics, and explosion dynamics are redundant with the NFPA 921 definition of fire science. The listing of those topics in the NFPA Preferred Definition of "fire science" are merely there as examples of the phrase "related topics" and not intended to be solely definitive components of "The body of knowledge concerning the study of fire..." See Committee Action in Committee Proposal 1033- (Log #CP5).
Substantiation: The problem with the list of required basic knowledge in this section is that it does not adequately require training in evidence collection and analysis, a critical part of any fire scene investigation. In NFPA 921 Section 16.1 (2011 edition), it states, "During the course of any fire investigation, the fire investigator is likely to be responsible for locating, collecting, identifying, storing, examining and arranging for testing of physical evidence. The fire investigator should be thoroughly familiar with the recommended and accepted methods of processing such physical evidence." The fact that NFPA 921 devotes a whole chapter to Physical Evidence should underscore its importance to the fire investigator. A typical high school education does not address fire scene evidence collection and analysis.

Committee Meeting Action: Accept in Principle in Part
Change the texts order and numbering of the current sections 1.3.7; A.1.3.7; 1.3.8; and A.1.3.8 as indicated. Add a definition of Fire Investigation Technology to Chapter 3.

1.3.7 The fire investigator shall remain current with investigation methodology, fire protection technology, and code requirements in the topics listed in section 1.3.7 by attending formal education courses, workshops and seminars and/or through professional publications and journals.

A.1.3.7 Fire investigation technology and practices are changing rapidly. It is essential for an investigator's performance and knowledge to remain current. It is recommended that investigators be familiar with the technical information

1.3.8 The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level: at a post-secondary education level:

(1) Fire science
(2) Fire chemistry
(3) Thermodynamics
(4) Thermometry
(5) Fire dynamics
(6) Explosion dynamics
(7) Computer fire modeling
(8) Fire investigation
(9) Fire analysis
(10) Fire investigation methodology
(11) Fire investigation technology
(12) Hazardous materials
(13) Failure analysis and analytical tools
(14) Fire protection systems
(15) Evidence documentation, collection, and preservation
(16) Electricity and electrical systems
A.1.3.9 A.1.3.7 Basic up-to-date information on these topics can be found in the current edition of NFPA 921. Guide for Fire and Explosion Investigations. NFPA 921 is written on a basic level for competency in fire and explosion investigation and updated on a three year cycle “to establish guidelines and recommendations for the safe and systematic investigation or analysis of fire and explosion incidents” and “is designed to produce a systematic, working framework or outline by which effective fire and explosion investigation and origin and cause analysis can be accomplished.” As stated in NFPA 921 “[It] is not intended as a comprehensive scientific or engineering text… many scientific and engineering concepts are presented within the text, the user is cautioned that these concepts are presented at an elementary level and additional technical sources, training, and education may often need to be utilized in an investigation. The documents or portions thereof listed in this [document] are referenced within this guide and shall be considered part of the requirements of this document.”
Committee Statement: The analysis of evidence once collected may not be a function of a fire investigator. Additionally, clarification on existing material within that section was also edited and modified. See Committee Action in Committee Proposal 1033- (Log #CP5).
1.3.8 The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools
14. Electricity and electrical systems as they relate to fire
15. Evidence documentation, collection, and preservation

The problem with the list of required basic knowledge in this section is that it does not adequately require training in electricity and electrical systems and their relationship with fire, a critical part of any fire scene investigation. Fire investigators are required to consider much data when they examine a fire scene or information related to a fire scene investigation. It is critical that fire investigators understood and have knowledge of electrical systems and the competency of electricity as an ignition source before they even begin a fire investigation. This knowledge is even more essential when examining evidence at or collected from a fire scene. Furthermore, this knowledge is important when formulating and testing hypotheses about the fire's origin and cause.
1.3.8* The investigator shall have and maintain at a minimum and up-to-date basic knowledge of the following topics beyond the high school level at a post secondary education level:

1. Fire science  
2. Fire chemistry  
3. Thermodynamics  
4. Thermometry  
5. Fire dynamics  
6. Explosion dynamics  
7. Computer fire modeling  
8. Fire investigation  
9. Fire analysis  
10. Fire investigation methodology  
11. Fire investigation technology  
12. Hazardous materials  
13. Failure analysis and analytical tools

Substantiation: The phrase has little or no use unless a list of topics or curriculum that meets the "beyond the high school level at a post secondary education level" is further defined. It may be confusing and misleading. While the removal of this phrase does not provide more specific detail as to what level of knowledge should be the minimum. It may avoid additional, confusing wording. It should suffice to say that fire investigators need and "up-to-date basic knowledge" of listed topics until a more specific list can be developed (possibly in future editions of the document).

Committee Meeting Action: Reject

Committee Statement: The committee is not clear what the submitter is proposing. The text that the submitter proposes contains no revision. It is exactly the same as the current text. However, the submitter is directed to see the committee action in 1033- (Log #CP5) for changes that are proposed to the sentence in question.
1.3.8* The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level at a post secondary education level:

(1) Fire science (to include a basic knowledge of the following sub-disciplines:

(2) Fire chemistry
(3) Fire dynamics
(4) Thermometry
(5) Explosion dynamics
(6) Computer fire modeling
(7) Fire investigation
(8) Fire analysis
(9) Fire investigation methodology
(10) Fire investigation technology
(11) Hazardous materials
(12) Failure analysis and analytical tools

Substantiation: A number of the topics included in this list seem to be included in the general heading of "Fire Science." Perhaps it would be more effective to list the more specific studies under the general heading "Fire Science." (The removal of the "beyond the high school..."

Committee Meeting Action: Reject

Committee Statement: The committee does not concur that the proposed changes reflect that the topics, thermodynamics, fire dynamics, explosion dynamics, are subtopics of fire science. The listing of those topics in the NFPA Preferred Definition for “fire science” are merely there as examples of the phrase “related topics” and not intended to be solely definitive components of “The body of knowledge concerning the study of fire...” See Committee Action in Committee Proposal 1033- (Log #CP5).
1.3.8* The investigator shall have and maintain at a minimum as up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

(1) Fire science
(2) Fire chemistry
(3) Thermodynamics
(4) Thermometry (Applied Metrology)
(5) Fire dynamics
(6) Explosion dynamics
(7) Computer fire modeling
(8) Fire investigation
(9) Fire analysis
(10) Fire investigation methodology
(11) fire investigation technology
(12) Hazardous materials
(13) Failure analysis and analytical tools

Substantiation: Thermometry is only concerned with the study of the measure of temperature. Applied Metrology includes thermometry as well as other measurement sciences (time, length, electrical power, etc.) used in society. If fire investigators are to be required to understand the science of thermometry, they should not stop there but should also understand how the various concepts of all forms of measurement as they are applied to fire investigation.

Committee Meeting Action: Reject

Committee Statement: The committee believes that the term “thermometry” is sufficiently defined in the lexicon as well as in Merriam-Webster’s Collegiate Dictionary, 11th edition, “the measurement of temperature,” and the phrase “applied metrology” has no definition in the Merriam-Webster’s Collegiate Dictionary, 11th edition, NFPA 921, Guide for Fire and Explosion Investigations or any other NFPA document.
Submittal: Steven J. Avato, Falls Church, VA

Recommendation: Add text to read as follows:

1.3.8* The investigator shall have and maintain at a minimum as up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

(1) Fire science
(2) Fire chemistry
(3) Thermodynamics
(4) Thermometry
(5) Fire dynamics
(6) Explosion dynamics
(7) Computer fire modeling
(8) Fire investigation
(9) Fire analysis
(10) Fire investigation methodology
(11) Fire investigation technology
(12) Hazardous materials
(13) Failure analysis and analytical tools
(14) Fire suppression techniques and tactics

Substantiation: Fire investigators need to have an understanding of the tactics and techniques used to extinguish fires and the impact these tactics have on the post-fire scene investigation.

Committee Meeting Action: Reject

Committee Statement: The committee believes this subject is better addressed in the JPRs and not in the general information section of the document. Refer to 4.2.5.
Add text to read as follows:

The investigator shall have and maintain at a minimum as up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools
14. Criminal and civil legal concepts pertinent to fire investigation

Substantiation: Fire investigators need to have an understanding of the legal underpinnings of fire investigation. Right of entry, chain of evidence, search and seizure issues are all key components in the conduct of a fire investigation. A good working knowledge of these issues should be a goal of a professional fire investigator.

Committee Meeting Action: Reject

Committee Statement: The committee believes the criminal and civil legal concepts pertinent to fire investigation are encompassed within 1.3.8 (8) Fire Investigation. See Committee Action in Committee Proposal 1033- (Log #CP5).
The investigator shall have and maintain at a minimum as up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level as they relate to fire investigations:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools

Substantiation: Justification: The term "maintain" can be defined as "to continue or preserve in." The term up-to-date is implied by this definition and as such is not needed. The term "post-secondary" is not defined in Webster's Collegiate Dictionary. It is commonly considered that post-secondary education is any schooling beyond high school. Section 1.3.2 of this document states that the minimum level of education for this position is "high school diploma or equivalent." Training and continued study in topics specifically related to fire investigations would provide the necessary knowledge in these areas. Additionally, the knowledge needed should be related specifically to fire investigations as there are many aspects of these areas of study that have no bearing on that task. For example, thermometry can involve the study of ocean temperatures or the history of thermometry. As these areas are not relevant to fire investigations, the publication should be specific so that this unrelated information is not implied.

Committee Meeting Action: Reject

Committee Statement: The committee believes it is necessary that the fire investigator's basic knowledge base be kept up-to-date and beyond the high school level. See Committee Action in Committee Proposal 1033- (Log #CP5).
1.3.8 The investigator shall have and maintain at a minimum as up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

(1) Fire science
(2) Fire chemistry
(3) Thermodynamics
(4) Thermometry
(5) Fire dynamics
(6) Explosion dynamics
(7) Computer fire modeling
(8) Fire investigation
(9) Fire analysis
(10) Fire investigation methodology
(11) fire investigation technology
(12) Hazardous materials
(13) Failure analysis and analytical tools
(14) Electricity and electrical systems

**Substantiation:** First the deleted words "have and." If you maintain the required knowledge then you have it. The deleted items seem redundant. The second change (14) Electricity and electrical systems. In general most state fire investigation certifications do not require any additional training past the basic requirements to maintain a fire investigation certification. Therefore, knowledge in this area should be required, this will then coattail into NFPA 921 Chapter 8 Electricity and fire and Chapter 17 "Origin Determination" and Arc Mapping. Not only do fire investigator's need to understand electrical systems and how they operate, but from a fire investigation standpoint it is equally important to be able to rule in or out a potential electrical causation.

**Committee Meeting Action:** Accept

**Committee Statement:** While it is not required by the TC to have a Statement, they wish to include: See Committee Action in Committee Proposal 1033- (Log #CP5).
The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools

In its current form, Subsection 1.3.8 makes reference to "Hazardous materials" without defining the term. In its current form, this is vague and ambiguous and possibly redundant to Subsection 4.1.3, which requires the investigator to have an ability to conduct "site safety assessments," and Subsection 4.2.2(A), which requires the investigator to have, "awareness of the dangers of hazardous materials." If the section is intended to require the investigator to have a knowledge of hazardous materials that differs from the requirements of Subsection 4.1.3 and Subsection 4.2.2(A), then the section should be clarified.

To illustrate the vagueness of the use of the term "hazardous materials" in the current form of Subsection 1.3.8, a non-exclusive listing of that term's usage in NFPA 921-2011 follows, along with references enumerated in NFPA 921 that address hazardous materials in some manner:

- NFPA 400, Hazardous Materials Code
- NFPA 400, Hazardous Substances Act (15 USC, Section 1261 et seq.)
- OSHA Regulations (Title 29, Code of Federal Regulations, Part 1910)
- "The use or transportation of hazardous or explosive materials"
- Safety clothing and equipment
- "Chemical hazards"
- "Safety in Off-Scene Investigation Activities"
- The U.S. Department of Transportation's "public records regarding its programs to ... monitor the transportation of hazardous and dangerous materials"
- "The U.S. Fire Administration[s] ... wide array of fire service-based programs, training, education, and technical and statistical information for ... hazardous materials...."

In addition, the 2008 edition of the NFPA Glossary of Terms establishes that the term "Hazardous Material" is defined differently within the following NFPA documents: 1, 30, 307, 402, 1500, 450, 472, 473, 495, 853, 901, 1006, 1201, 1710, 1720, 1851, 1991, 1992, 1999, 2012, 2113, and 5000. In addition, the Glossary of Terms identifies definitions for Hazardous Chemicals, Hazardous Debris, Hazardous Fluid, Hazardous Substance, and Hazardous Waste, each of which appear to be of equal importance to an investigator's minimum knowledge of "Hazardous Materials."
Committee Statement: The committee believes that the topic of hazardous materials is important both to the safety and competence of fire investigators, it is commonly understood within the fire investigation profession, and is sufficiently defined by the NFPA Preferred Definition as directed in A.1.3.8 in referenced documents of NFPA 921, Guide for Fire and Explosion Investigations, (including NFPA 400 The Hazardous Materials Code) as cited by the submitter in his substantiation. See Committee Action in Committee Proposal 1033- (Log #CP5).

Submatter: 1033-20 Log #32 PQU-FIV (1.3.8)

Final Action: Reject

Submitter: Craig Roecks, Southwest Gas Corp.

Recommendation: Revise text to read as follows:
The investigator shall have and maintain, at a minimum, an up-to-date basic knowledge of the following topics beyond the high school level, at a post-secondary education level:

(1) Fire science
(2) Fire chemistry
(3) Thermodynamics
(4) Thermometry
(5) Fire dynamics
(6) Explosion dynamics
(7) Computer fire modeling
(8) Fire investigation
(9) Fire analysis
(10) Fire investigation methodology
(11) Fire investigation technology
(12) Hazardous materials
(13) Failure analysis and analytical tools

Substantiation: In its current form, Subsection 1.3.8's inclusion of the text, "an up-to-date basic" is both redundant and vague. It is enough to say that an investigator shall "maintain" knowledge without also specifying that the knowledge shall be "up to date". Also, it is enough to specify the requisite knowledge as being "a post-secondary education level" without also specifying it to be "basic knowledge," which is vague and possibly contradictory to the "post-secondary education level" requirement.

Also, it is redundant to refer to the education level as "beyond the high school level" while also describing it as being "post secondary education level."

Committee Meeting Action: Reject

Committee Statement: The committee believes it is necessary that the fire investigator’s basic knowledge base be kept up-to-date and beyond the high school level. See Committee action on 1033- (Log #29) and 1033- (Log # CP5).
Submitter: Craig Roecks, Southwest Gas Corp.
Recommendation: Revise text to read as follows:

The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Engineering measurement technology
6. Fire dynamics
7. Explosion dynamics
8. Computer fire modeling
9. Fire investigation
10. Fire analysis
11. Fire investigation methodology
12. Fire investigation technology
13. Hazardous materials
14. Failure analysis and analytical tools

Substantiation: In its current form, Section 1.3.8 places an unwarranted emphasis on knowledge of temperature measurement. The standard should include appropriate emphasis on all manner of engineering measurements that are pertinent to fire investigation as identified by NFPA 921-2011, including measuring pressure, weight, distance, velocity (for gases and wind), flow rate, hydrocarbon gas concentration, odorant concentration of fuel gases, voltage, current (amperes), resistance (ohms), and other measurements as the circumstances warrant. The requisite knowledge and education is such that the fire investigator will be equipped with the skill and knowledge necessary to choose the right equipment to obtain accurate data and to identify: faulty equipment; the manner of measuring (e.g., a basic understanding of the electronics used in measurement); calibration methods; and assessing the uncertainty of measurements (including measurement error).

Committee Meeting Action: Reject

Committee Statement: The committee believes that a basic knowledge of thermometry is a necessary requisite for a qualified fire investigator. The phrase “engineering measurement technology” has no definition in the Merriam-Webster’s Collegiate Dictionary, 11th edition, NFPA 921, Guide for Fire and Explosion Investigations, or any other NFPA document. The submitter’s definition of engineering measurement technology in his substantiation is covered in the other topics in the 1.3.8 list. See Committee Action in Committee Proposal 1033- (Log #CP5).
Submittor: Craig Roecks, Southwest Gas Corp.

Recommendation: Revise text to read as follows:

The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond
the high school level at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosions dynamics, as described in NFPA 921, Chapter 21
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools

Substantiation: In its current form, Subsection 1.3.8 makes reference to “Explosion dynamics” without defining the
term. While resort may be had to the appropriate edition of Merriam Webster’s Collegiate Dictionary to determine the
ordinary accepted meaning of terms that are not defined in NFPA 1033, it appears that the term is intended to have a
specific meaning. The term, “Explosion dynamics” is not defined in NFPA 921-2011, but the term is referenced within
NFPA 921 Chapter 21. Rather than attempting to define the term and thus place undue importance upon a portion of
Chapter 21 of NFPA 921, this proposal would provide that the investigator have and maintain knowledge of explosions
as that topic is described in Chapter 21.

Committee Meeting Action: Reject

Committee Statement: The committee believes that basic knowledge of explosion dynamics is necessary.
The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools, as described in NFPA 921, Chapter 20

Substantiation: In its current form, Subsection 1.3.8 makes reference to “Failure analysis and analytical tools” without defining the term. While resort may be had to the appropriate edition of Merriam Webster’s Collegiate Dictionary to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, it appears that the term is intended to refer to the precise and unique definition given by NFPA 921 Chapter 20.

Committee Meeting Action: Accept in Principle
Change the texts order and numbering of the current sections 1.3.7; A.1.3.7; 1.3.8; and A.1.3.8 as indicated. Add a definition of Fire Investigation Technology to Chapter 3.

A.1.3.7* A.1.3.8* The fire investigator shall remain current with investigation methodology, fire protection technology, and code requirements in the topics listed in section 1.3.7 by attending formal education courses, workshops and seminars and/or through professional publications and journals.

A.1.3.7 A.1.3.8 Fire investigation technology and practices are changing rapidly. It is essential for an investigator’s performance and knowledge to remain current. It is recommended that investigators be familiar with the technical information.

A.1.3.8* 1.3.7 The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level: at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools
14. Fire protection systems
15. Evidence documentation, collection, and preservation
16. Electricity and electrical systems.

A.1.3.8 A.1.3.7 Basic up-to-date information on these topics can be found in the current edition of NFPA 921 Guide for Fire and Explosion Investigations. NFPA 921 is written on a basic level for competency in fire and explosion investigation and updated on a three year cycle “to establish guidelines and recommendations for the safe and systematic investigation or analysis of fire and explosion incidents” and “is designed to produce a systematic, working...
framework or outline by which effective fire and explosion investigation and origin and cause analysis can be accomplished." As stated in NFPA 921 "[It] is not intended as a comprehensive scientific or engineering text... many scientific and engineering concepts are presented within the text, the user is cautioned that these concepts are presented at an elementary level and additional technical sources, training, and education may often need to be utilized in an investigation. The documents or portions thereof listed in this [document] are referenced within this guide and shall be considered part of the requirements of this document."

Committee Statement: NFPA 921, Guide for Fire and Explosion Investigations, is cited as the source of all of the topics in 1.3.8. Citing individual chapter numbers from any NFPA document can be confusing because chapter numbers in individual NFPA document can change from revision cycle to cycle. Additionally, clarification on existing material within that section was also edited and modified. See Committee Action in Committee Proposal 1033- (Log #CP5).
The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

1. Fire science
2. Fire chemistry, as described in NFPA 921, Subsection 5.2
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools
14. Fire protection systems
15. Evidence documentation, collection, and preservation
16. Electricity and electrical systems

**Substantiation:** In its current form, Subsection 1.3.8 makes reference to “Fire chemistry” without defining the term. While resort may be had to the appropriate edition of Merriam Webster’s Collegiate Dictionary to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, it appears that the term is intended to refer to the precise and unique definition given by NFPA 921 Section 5.2.

**Committee Meeting Action:** Accept in Principle

Change the text's order and numbering of the current sections 1.3.7; A.1.3.7; 1.3.8; and A.1.3.8 as indicated. Add a definition of Fire Investigation Technology to Chapter 3.

**A.1.3.7 A.1.3.8** Fire investigation technology and practices are changing rapidly. It is essential for an investigator’s performance and knowledge to remain current. It is recommended that investigators be familiar with the technical information.

1.3.7* A.1.3.7 The fire investigator shall remain current with investigation methodology, fire protection technology, and code requirements in the topics listed in section 1.3.7 by attending formal education courses, workshops and seminars and/or through professional publications and journals.

**A.1.3.8** Basic up-to-date information on these topics can be found in the current edition of NFPA 921 Guide for Fire and Explosion Investigations. NFPA 921 is written on a basic level for competency in fire and explosion investigation and updated on a three year cycle “to establish guidelines and recommendations for the safe and systematic investigation or analysis of fire and explosion incidents” and “is designed to produce a systematic, working.
framework or outline by which effective fire and explosion investigation and origin and cause analysis can be accomplished.” As stated in NFPA 921 “[It] is not intended as a comprehensive scientific or engineering text... many scientific and engineering concepts are presented within the text, the user is cautioned that these concepts are presented at an elementary level and additional technical sources, training, and education may often need to be utilized in an investigation. The documents or portions thereof listed in this [document] are referenced within this guide and shall be considered part of the requirements of this document.”

Committee Statement: NFPA 921, Guide for Fire and Explosion Investigations, is cited as the source of all of the topics in 1.3.8. Citing individual chapter numbers from any NFPA document can be confusing because chapter numbers in individual NFPA document can change from revision cycle to cycle. Additionally, clarification on existing material within that section was also edited and modified. See Committee Action in Committee Proposal 1033- (Log #CP5).
The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology, as described in NFPA 921, Chapters 17 and 18
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools

**Substantiation:** In its current form, Subsection 1.3.8 makes reference to “Fire investigation methodology” without defining the term “methodology.” While resort may be had to the appropriate edition of *Merriam Webster’s Collegiate Dictionary* to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, it appears that the term is intended to have a specific meaning. The methodologies for “fire investigation” (as opposed to “fire analysis”) are described in NFPA 921, Chapters 17 and 18.

**Committee Meeting Action:** Accept in Principle

Change the text order and numbering of the current sections 1.3.7; A.1.3.7; 1.3.8; and A.1.3.8 as indicated. Add a definition of Fire Investigation Technology to Chapter 3.

**A.1.3.7** Fire investigation technology and practices are changing rapidly. It is essential for an investigator’s performance and knowledge to remain current. It is recommended that investigators be familiar with the technical information.

**A.1.3.8** Basic up-to-date information on these topics can be found in the current edition of NFPA 921. *Guide for Fire and Explosion Investigations.* NFPA 921 is written on a basic level for competency in fire and explosion investigation and updated on a three year cycle “to establish guidelines and recommendations for the safe and
systematic investigation or analysis of fire and explosion incidents” and “is designed to produce a systematic, working framework or outline by which effective fire and explosion investigation and origin and cause analysis can be accomplished.” As stated in NFPA 921 “[It] is not intended as a comprehensive scientific or engineering text... many scientific and engineering concepts are presented within the text, the user is cautioned that these concepts are presented at an elementary level and additional technical sources, training, and education may often need to be utilized in an investigation. The documents or portions thereof listed in this [document] are referenced within this guide and shall be considered part of the requirements of this document.”

Committee Statement: NFPA 921, Guide for Fire and Explosion Investigations, is cited as the source of all of the topics in 1.3.8. Citing individual chapter numbers from any NFPA document can be confusing because chapter numbers in individual NFPA document can change from revision cycle to cycle. Additionally, clarification on existing material within that section was also edited and modified. See Committee Action in Committee Proposal 1033- (Log #CP5).

1033-28 Log #38 PQU-FIV Final Action: Reject
(1.3.8(3))

Submitter: Craig Roecks, Southwest Gas Corp.
Recommendation: Add new text to read as follows:
The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level at a post-secondary education level:
(1) Fire science
(2) Fire chemistry
(3) **Rudimentary** Thermodynamics
(4) Thermometry
(5) Fire dynamics
(6) Explosion dynamics
(7) Computer fire modeling
(8) Fire investigation
(9) Fire analysis
(10) Fire investigation methodology
(11) Fire investigation technology
(12) Hazardous materials
(13) Failure analysis and analytical tools

Substantiation: In its current form, Subsection 1.3.8 requires an investigator to have and maintain knowledge at a post-secondary education level of thermodynamics. However, university courses in thermodynamics require the student to have knowledge of calculus and the topics in thermodynamics courses include power and refrigeration cycles, irreversible processes, and other topics that are unrelated to fire investigation. The section should be amended to provide that the investigator have and maintain a rudimentary knowledge of thermodynamics.

Committee Meeting Action: Reject
Committee Statement: The committee believes the first line of the text description of “basic knowledge” and the annex item, A.1.3.8, is sufficient to inform the reader that a complete, detailed knowledge of thermodynamics is not necessary. Use of the term “Rudimentary” is less definitive than the current text.
**1033-32 Log #39 PQU-FIV  
(3.3.x Fire Analysis (New))**  
Final Action: Accept in Principle

**Submitter:** Craig Roecks, Southwest Gas Corp.  
**Recommendation:** Add new text to read as follows:  

**Fire Analysis.** The process of performing a fire investigation, determining responsibility, and, when requested, a failure analysis of a fire or explosion.

**Substantiation:** In its current form, Subsection 1.3.8 makes reference to “Fire analysis” without defining the term. While resort may be had to the appropriate edition of Merriam Webster’s Collegiate Dictionary to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, it appears that the term is intended to refer to the precise and unique definition given in NFPA 921 Section 3.3.59. The definition included in this proposal is simplified version of the NFPA 921 definition that eliminates redundancies that currently exist between the NFPA 921 definitions of “fire investigation” and “fire analysis.”

**Committee Meeting Action:** Accept in Principle

Add new text to read as follows:  

**Fire Analysis.** The process of determining the origin, cause, development, responsibility, and, when required, failure analysis of a fire or explosion.

**Substantiation:** In its current form, Subsection 1.3.8 makes reference to “Fire analysis” without defining the term. While resort may be had to the appropriate edition of Merriam Webster’s Collegiate Dictionary to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, it appears that the term is intended to refer to the precise and unique definition given in NFPA 921 Section 3.3.59. The definition included in this proposal is identical to the NFPA 921 definition. A companion proposal is offered which simplifies the definition and can be used in place of this proposal.

**Committee Statement:** While the technical committee agrees with the concept of a definition for Fire Analysis it believes the definition phrase should be different. See committee action on proposal 1033- (Log #40).

---

**1033-33 Log #40 PQU-FIV  
(3.3.x Fire Analysis (New))**  
Final Action: Accept

**Submitter:** Craig Roecks, Southwest Gas Corp.  
**Recommendation:** Add new text to read as follows:  

**Fire Analysis.** The process of determining the origin, cause, development, responsibility, and, when required, failure analysis of a fire or explosion.

**Substantiation:** In its current form, Subsection 1.3.8 makes reference to “Fire analysis” without defining the term. While resort may be had to the appropriate edition of Merriam Webster’s Collegiate Dictionary to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, it appears that the term is intended to refer to the precise and unique definition given in NFPA 921 Section 3.3.59. The definition included in this proposal is identical to the NFPA 921 definition. A companion proposal is offered which simplifies the definition and can be used in place of this proposal.

**Committee Meeting Action:** Accept

**Committee Statement:** This definition is the NFPA Preferred Definition.

---

**1033-34 Log #41 PQU-FIV  
(3.3.x Fire Dynamics (New))**  
Final Action: Accept

**Submitter:** Craig Roecks, Southwest Gas Corp.  
**Recommendation:** Add new text to read as follows:  

**Fire dynamics.** The detailed study of how chemistry, fire science, and the engineering disciplines of fluid mechanics and heat transfer interact to influence fire behavior.

**Substantiation:** In its current form, Subsection 1.3.8 makes reference to “Fire dynamics” without defining the term. While resort may be had to the appropriate edition of Merriam Webster’s Collegiate Dictionary to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, it appears that the term is intended to refer to the precise and unique definition given in NFPA 921 Section 3.3.61. The definition included in this proposal is identical to the definition in NFPA 921.

**Committee Meeting Action:** Accept
<table>
<thead>
<tr>
<th>Log #42</th>
<th>PQU-FIV</th>
<th>Final Action: Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1033-35</strong></td>
<td><strong>Log #42</strong></td>
<td><strong>PQU-FIV</strong></td>
</tr>
<tr>
<td><em>(3.3.x Fire Service (New)</em> )</td>
<td><strong>Final Action: Accept</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Submitter:** Craig Roecks, Southwest Gas Corp.

**Recommendation:** Add new text to read as follows:

**Fire Science.** The body of knowledge concerning the study of fire and related subjects (such as combustion, flame, products of combustion, heat release, heat transfer, fire and explosion chemistry, fire and explosion dynamics, thermodynamics, kinetics, fluid mechanics, fire safety) and their interaction with people, structures, and the environment.

**Substantiation:** In its current form, Subsection 1.3.8 makes reference to “Fire science” without defining the term. While resort may be had to the appropriate edition of *Merriam Webster's Collegiate Dictionary* to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, it appears that the term is intended to refer to the precise and unique definition given in NFPA 921 Section 3.3.67. The definition included in this proposal is identical to the NFPA 921 definition.

**Committee Meeting Action:** Accept

---

<table>
<thead>
<tr>
<th>Log #43</th>
<th>PQU-FIV</th>
<th>Final Action: Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1033-43</strong></td>
<td><strong>Log #43</strong></td>
<td><strong>PQU-FIV</strong></td>
</tr>
<tr>
<td><em>(4.2.2(A)</em> )</td>
<td><strong>Final Action: Reject</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Submitter:** Craig Roecks, Southwest Gas Corp.

**Recommendation:** Revise text to read as follows:

**(A) Requisite Knowledge.** The types of building construction and the effects of fire on construction materials, types of evidence commonly found in the perimeter, evidence preservation methods, the effects of fire suppression, fire behavior and spread, fire patterns, and basic awareness of the dangers of hazardous materials.

**Substantiation:** The term, “basic” is not defined in NFPA 1033. The definition of “basic” in the appropriate edition of the edition of *Merriam Webster’s Collegiate Dictionary*, which is used to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, is vague. On balance, it is unnecessary to employ the term “basic” in this section.

**Committee Meeting Action:** Reject

**Committee Statement:** The committee feels the language is adequate.

---

<table>
<thead>
<tr>
<th>Log #44</th>
<th>PQU-FIV</th>
<th>Final Action: Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1033-46</strong></td>
<td><strong>Log #44</strong></td>
<td><strong>PQU-FIV</strong></td>
</tr>
<tr>
<td><em>(4.2.6(A)</em> )</td>
<td><strong>Final Action: Reject</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Submitter:** Craig Roecks, Southwest Gas Corp.

**Recommendation:** Revise text to read as follows:

**(A) Requisite Knowledge.** Basic understanding of ignition processes, characteristics of ignition sources, and ease of ignition of fuels; debris-layering techniques; use of tools and equipment during the debris search; types of fire cause evidence commonly found in various degrees of damage; and evidence-gathering methods and documentation.

**Substantiation:** The term, “basic” is not defined in NFPA 1033. The definition of “basic” in the appropriate edition of the edition of *Merriam Webster’s Collegiate Dictionary*, which is used to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, is vague. On balance, it is unnecessary to employ the term “basic” in this section.

**Committee Meeting Action:** Reject

**Committee Statement:** The committee feels the language is adequate.
(B) Requisite Skills. Ability to sketch the scene, basic rudimentary drafting skills, and evidence recognition and observational skills.

Substantiation: The term, “basic” is not defined in NFPA 1033. The definition of “basic” in the appropriate edition of the edition of *Merriam Webster’s Collegiate Dictionary*, which is used to determine the ordinary accepted meaning of terms that are not defined in NFPA 1033, is vague. On balance, it is unnecessary to employ the term “basic” in this section. “Rudimentary” is the better term.

Committee Meeting Action: Reject

Committee Statement: The committee believes the existing text is clear.

----

Basic up-to-date information on these topics can be found in the current edition of NFPA 921.

Substantiation: In its current form, Subsection A.1.3.8’s inclusion of the text, "Basic up-to-date " is both redundant and vague. It is enough to say that the information is available in the “current edition” of NFPA 921 without also calling the information “up-to-date.” Also, it is unnecessary to refer to the information as “basic” when the Section 1.3.8 itself describes the requisite knowledge as being "a post-secondary education level." Indeed, calling the information "basic" is vague and possibly contradictory to being of "a post-secondary education level."

Committee Meeting Action: Reject

Committee Statement: The Committee believes that the knowledge should be both basic and up-to-date, and disagrees with the submitter's substantiation.

----

The requisite knowledge and post-secondary education recommended for engineering measurement technology is such that the fire investigator is equipped with the skill and knowledge necessary to choose the right equipment to obtain accurate data and to identify faulty equipment, the manner of measuring (e.g., a basic understanding of the electronics used in measurement), calibration methods, and assessing the uncertainty of measurements (including measurement error). This includes a knowledge of the technology employed in measuring temperature, pressure, weight, distance, velocity (for gases and wind), humidity, flow rate, hydrocarbon gas concentration, odorant concentration in fuel gases, voltage, current (amperes), resistance (ohms), and other measurements as the circumstances warrant.

Substantiation: This amendment explains the meaning of the contemporaneous proposal to modify Section 1.3.8 to include knowledge and education in “Engineering measurement technology.” This proposal identifies the skills and education that are relevant to fire and explosion investigation measurements as described in NFPA 921 – 2011.

Committee Meeting Action: Reject

Committee Statement: The committee believes that a basic knowledge of thermometry is a necessary requisite for a qualified fire investigator. The phrase “engineering measurement technology” has no definition in the Merriam-Webster’s Collegiate Dictionary, 11th edition, NFPA 921, Guide for Fire and Explosion Investigations, or any other NFPA document. The submitter’s definition of engineering measurement technology in his substantiation is covered in the other topics in the 1.3.8 list. See Committee Action in Committee Proposal 1033- (Log #CP5).
Gerard J. Naylis, Bergenfield, NJ

Recommendation: Create new Chapter 4 and 5. Move existing Chapter 4 and make it new Chapter 6. Renumber all items in existing Chapter 4 with new number in Chapter 6 as follows:

New Chapter 4.

Fire Investigation – Awareness Level

4.1 Protect evidence of fire cause and origin, given a flashlight and overhaul tools, so that the evidence is noted and protected from further disturbance until investigators can arrive on scene.

(A) Requisite Knowledge: Methods to assess origin and cause; types of evidence; means to protect various types of evidence; the role and relationships of Fire Fighter IIs, fire investigators, criminal investigators, private sector investigators and insurance investigators in fire investigations; and the effects and problems associated with removing property or evidence from the scene.

(B) Requisite Skill: The ability to locate the fire’s origin area; recognize possible causes; and protect the evidence.

New chapter 5

Fire Investigation – Technician Level

5.1 Investigation. Perform a fire investigation to determine preliminary cause, securing the incident scene, and preserving evidence, according to the following job performance requirements. This also includes functioning as part of an investigative team under the supervision of a fire investigator.

5.1.1 Evaluate available information, given a fire incident, observations, and interviews of first-arriving members and other individuals involved in the incident, so that a preliminary cause of the fire is determined, reports are completed, and, if required, the scene is secured and all pertinent information is turned over to an investigator.

(A) Requisite Knowledge. Common causes of fire, fire growth and development, policies and procedures for calling for investigators.

(B) Requisite Skills. The ability to determine basic fire cause, conduct interviews, and write reports.

5.1.2 Secure an incident scene, given rope or barrier tape, so that unauthorized persons can recognize the perimeters of the scene and are kept from restricted areas, and all evidence or potential evidence is protected from damage or destruction.

(A) Requisite Knowledge. Types of evidence, the importance of fire scene security, and evidence preservation.

(B) Requisite Skills. The ability to establish perimeters at an incident scene.

Substantiation: This proposal seeks to establish three distinct levels of competency related to the investigation of fires and explosions. Within several NFPA standards, (e.g. 1001, 1021 and 1033) there are JPR’s related to the investigation of fires and explosions that assign various responsibilities to individuals who may attend a fire or explosion. Because of the assignment of responsibilities by the authority having jurisdiction, a particular individual may have some but not all of the responsibilities contained in the current edition of NFPA 1033.

Nonetheless, these individuals may wish to demonstrate their professional competency within the scope of their workplace responsibility. By merging the JPR’s from the aforementioned documents into NFPA 1033 and creating multiple levels, individuals will be able to do just that.

There is an added benefit in that this proposal focuses on the preservation and protection of evidence at the scene so that ultimately all parties with an interest in the outcome of an investigation will have the appropriate evidence to examine.

This is not original material; its reference/source is as follows:

NFPA 1001 and NFPA 1021, plus original wording by this proposer.

Committee Meeting Action: Reject

Committee Statement: The committee believes the proposal is outside the committee and document scope.
Locate, document, collect, label, package and store evidence, given standard or special and tools and equipment and evidence collection materials, so that it is properly identified, preserved, collected, packaged and stored for use in testing, court or other proceedings and examinations, ensuring cross contamination and investigator-inflicted damage to evidentiary items is avoided and the chain of custody is established.

Substantiation: This new language adds clarity for the protocols for collecting evidence and extends the guidance to labeling and storing which is consistent with other guiding documents.

Committee Meeting Action: Accept in Principle

Interpret fire patterns, given standard equipment and tools and some structural or content remains, so that each individual pattern is evaluated with respect to the burning characteristics of the material involved; and each pattern evaluated in context and relationship with all patterns observed and the mechanisms of heat transfer that lead to the formation of the pattern.

Substantiation: This is a more accurate statement regarding the interpretation of patterns and more consistent with NFPA 921 and other authoritative text and treatises.

Committee Meeting Action: Accept
The fire investigator various positions outlined in this standard shall meet the job performance requirements as defined in Sections 4.2 through 4.7 the relevant sections of this document. The fire investigator positions defined in this document shall employ all elements of the scientific method as the operating analytical process throughout the investigation and for the drawing of conclusions. Because fire investigators are required to perform activities in adverse conditions, site safety assessments shall be completed on all scenes and regional and national safety standards shall be followed and included in organizational policies and procedures. The fire investigator various fire investigator positions outlined in this document shall maintain necessary liaison with other interested professionals and entities. The various fire investigator positions defined in this document shall adhere to all applicable rules, regulations and statutory requirements (criminal and/or civil) within the various jurisdictions with which they operate. The fire investigator positions shall understand the organization and operation of the investigative team within an incident management command system. Duties shall include inspecting and evaluating the fire scene, or evidence of the scene if the scene is no longer available, so as to determine the area or point of origin, source of ignition, material(s) ignited, and act or activity that brought ignition source and materials together and to assess the subsequent progression, extinguishment, and containment of the fire.

4.2 Scene Examination. Duties shall include inspecting and evaluating the fire scene, or evidence of the scene if the scene is no longer available, so as to determine the area or point of origin, source of ignition, material(s) ignited, and act or activity that brought ignition source and materials together and to assess the subsequent progression, extinguishment, and containment of the fire:

(A) Requisite Knowledge. Fire ground hazards, types of evidence, and the importance of fire scene security, evidence preservation, and issues relating to spoliation;

(B) Requisite Skills. Use of marking devices:

4.2.2 Conduct an exterior survey, given standard equipment and tools, so that evidence is preserved, fire damage is interpreted, hazards are identified to avoid injuries, accessibility to the property is determined, and all potential means of ingress and egress are discovered:

(A) Requisite Knowledge. The types of building construction and the effects of fire on construction materials, types of evidence commonly found in the perimeter, evidence preservation methods, the effects of fire suppression, fire behavior and spread, fire patterns, and a basic awareness of the dangers of hazardous materials;

(B) Requisite Skills. Assess fire ground and structural condition, observe the damage from and effects of the fire, and interpret fire patterns:

4.2.3 Conduct an interior survey, given standard equipment and tools, so that areas of potential evidentiary value requiring further examination are identified and preserved, the evidentiary value of contents is determined, and hazards are identified in order to avoid injuries:

(A) Requisite Knowledge. The types of building construction and interior finish and the effects of fire on those materials, the effects of fire suppression, fire behavior and spread, evidence preservation methods, fire patterns, effects of building contents on fire growth, the relationship of building contents to the overall investigation, weather conditions at the time of the fire, and fuel moisture;

(B) Requisite Skills. Assess structural conditions, observe the damage and effects of the fire, discover the impact of fire suppression efforts on fire flow and heat propagation, and evaluate protected areas to determine the presence and/or absence of contents:

4.2.4 Interpret fire patterns, given standard equipment and tools and some structural or content remains, so that each individual pattern is evaluated with respect to the burning characteristics of the material involved:

(A) Requisite Knowledge. Fire dynamics, fire development, and the interrelationship of heat release rate, form, and ignitibility of materials;

(B) Requisite Skills. Interpret the effects of burning characteristics on different types of materials:

4.2.5 Interpret and analyze fire patterns, given standard equipment and tools and some structural or content remains, so that fire development is determined, methods and effects of suppression are evaluated, false origin area patterns are
(A) Requisite Knowledge. Fire behavior and spread based on fire chemistry, fire dynamics, and physics; fire suppression effects; building construction.

(B) Requisite Skills. Interpret variations of fire patterns on different materials with consideration given to heat release rate, form, and ignitibility, distinguish impact of different types of fuel loads, evaluate fuel trails, and analyze and synthesize information.

4.2.6 Examine and remove fire debris, given standard equipment and tools, so that all debris is checked for fire cause evidence; potential ignition source(s) is identified; and evidence is preserved without investigator-inflicted damage or contamination:

(A) Requisite Knowledge. Basic understanding of ignition processes, characteristics of ignition sources, and ease of ignition of fuels, debris-layering techniques, use of tools and equipment during the debris search, types of fire cause evidence commonly found in various degrees of damage; and evidence-gathering methods and documentation.

(B) Requisite Skills. Employ search techniques that further the discovery of fire cause evidence and ignition sources; use search techniques that incorporate documentation; and collect and preserve evidence.

4.2.7 Reconstruct the area of origin, given standard and, if needed, special equipment and tools as well as sufficient personnel, so that all protected areas and fire patterns are identified and correlated to contents or structural remains; items potentially critical to cause determination and photo documentation are returned to their prefire location, and the area(s) or point(s) of origin is discovered:

(A) Requisite Knowledge. The effects of fire on different types of material and the importance and uses of reconstruction.

(B) Requisite Skills. Examine all materials to determine the effects of fire, identify and distinguish among different types of fire-damaged contents; and return materials to their original position using protected areas and fire patterns.

4.2.8 Inspect the performance of building systems, including detection, suppression, HVAC, utilities, and building compartmentation; given standard and special equipment and tools, so that a determination can be made as to the need for expert resources; an operating system's impact on fire growth and spread is considered in identifying origin areas; defeated and/or failed systems are identified; and the system's potential as a fire cause is recognized:

(A) Requisite Knowledge. Different types of detection; suppression, HVAC, utility, and building compartmentation; such as fire walls and fire doors; types of expert resources for building systems; the impact of fire on various systems; common methods used to defeat a system's functional capability; and types of failures:

(B) Requisite Skills. Determine the system's operation and its effect on the fire; identify alterations to, and failure indicators of, building systems; and evaluate the impact of suppression efforts on building systems.

4.2.9 Discriminate the effects of explosions from other types of damage; given standard equipment and tools, so that an explosion is identified and its evidence is preserved:

(A) Requisite Knowledge. Different types of explosions and their causes, characteristics of an explosion, and the difference between low- and high-order explosions.

(B) Requisite Skills. Identify explosive effects on glass, walls, foundations, and other building materials; distinguish between low- and high-order explosion effects; and analyze damage to document the blast zone and origin.

4.3 Documenting the Scene. Duties shall include diagramming the scene, photographing, and taking field notes to be used to compile a final report:

4.3.1 Diagram the scene, given standard tools and equipment, so that the scene is accurately represented and evidence; pertinent contents; significant patterns; and area(s) or point(s) of origin are identified:

(A) Requisite Knowledge. Commonly used symbols and legends that clarify the diagram; types of evidence and patterns that need to be documented; and formats for diagramming the scene.

(B) Requisite Skills. Ability to sketch the scene; basic drafting skills; and evidence recognition and observational skills.

4.3.2 Photographically document the scene; given standard tools and equipment; so that the scene is accurately depicted and the photographs support scene findings:

(A) Requisite Knowledge. Working knowledge of high-resolution camera and flash; types of film, media, and flash available; and the strengths and limitations of each.

(B) Requisite Skills. Ability to use a high-resolution camera; flash; and accessories.

4.3.3 Construct investigative notes; given a fire scene; available documents (e.g., prefire plans and inspection reports); and interview information; so that the notes are accurate; provide further documentation of the scene; and represent complete documentation of the scene findings.

(A) Requisite Knowledge. Relationship between notes, diagrams, and photos; how to reduce scene information into concise notes; and the use of notes during report writing and legal proceedings.

(B) Requisite Skills. Data-reduction skills; note-taking skills; and observational and correlating skills.

4.4 Evidence Collection/Preservation. Duties shall include using proper physical and legal procedures to retain evidence required within the investigation:
4.4.1 Utilize proper procedures for managing victims and fatalities, given a protocol and appropriate personnel, so that all evidence is discovered and preserved and the protocol procedures are followed:

(A) Requisite Knowledge: Types of evidence associated with fire victims and fatalities and evidence preservation methods.

(B) Requisite Skills: Observational skills and the ability to apply protocols to given situations.

4.4.2 Locate, collect, and package evidence, given standard or special tools and equipment and evidence collection materials, so that evidence is identified, preserved, collected, and packaged to avoid contamination and investigator-inflicted damage and the chain of custody is established:

(A) Requisite Knowledge: Types of evidence, authority requirements, impact of removing evidentiary items on civil or criminal proceedings (exclusionary or fire-cause supportive evidence); types, capabilities, and limitations of standard and special tools used to locate evidence; types of laboratory tests available; packaging techniques and materials; and impact of evidence collection on the investigation.

(B) Requisite Skills: Ability to recognize different types of evidence and determine whether evidence is critical to the investigation.

4.4.3 Select evidence for analysis given all information from the investigation, so that items for analysis support specific investigation needs:

(A) Requisite Knowledge: Purposes for submitting items for analysis; types of analytical services available; and capabilities and limitations of the services performing the analysis.

(B) Requisite Skills: Evaluate the fire incident to determine forensic, engineering, or laboratory needs.

4.4.4 Maintain a chain of custody; given standard investigative tools; marking tools; and evidence tags or logs, so that written documentation exists for each piece of evidence and evidence is secured:

(A) Requisite Knowledge: Rules of custody and transfer procedures; types of evidence (e.g., physical evidence obtained at the scene, photos, and documents); and methods of recording the chain of custody.

(B) Requisite Skills: Ability to execute the chain of custody procedures and accurately complete necessary documents.

4.4.5 Dispose of evidence, given jurisdictional or agency regulations and file information, so that the disposal is timely; safely conducted; and in compliance with jurisdictional or agency requirements:

(A) Requisite Knowledge: Disposal services available and common disposal procedures and problems.

(B) Requisite Skills: Disposal services available and common disposal procedures and problems.

4.5 Interview: Duties shall include obtaining information regarding the overall fire investigation from others through verbal and nonverbal communication:

4.5.1 Develop an interview plan, given no special tools or equipment, so that the plan reflects a strategy to further determine the fire cause and affix responsibility and includes a relevant questioning strategy for each individual to be interviewed that promotes the efficient use of the investigator’s time:

(A) Requisite Knowledge: Persons who can provide information that furthers the fire cause determination or the affixing of responsibility; types of questions that are pertinent and efficient to ask of different information sources (first responders, neighbors, witnesses, suspects, and so forth); and pros and cons of interviews versus document gathering.

(B) Requisite Skills: Planning skills, development of focused questions for specific individuals, and evaluation of existing file data to help develop questions and fill investigative gaps.

4.5.2 Conduct interviews, given incident information, so that pertinent information is obtained; follow-up questions are asked; responses to all questions are elicited; and the response to each question is documented accurately:

(A) Requisite Knowledge: Types of interviews, personal information needed for proper documentation or follow-up, documenting methods and tools, and types of nonverbal communications and their meaning.

(B) Requisite Skills: Adjust interviewing strategies based on deductive reasoning; interpret verbal and nonverbal communications; apply legal requirements applicable, and exhibit strong listening skills.

4.5.3 Evaluate interview information; given interview transcripts or notes and incident data, so that all interview data is individually analyzed and correlated with all other interviews, corroborative and conflictive information is documented; and new leads are developed:

(A) Requisite Knowledge: Types of reports and records; report evaluation methods; report evaluation methods; and data correlation methods.

4.6 Post-Incident Investigation: Duties shall include the investigation of all factors beyond the fire scene at the time of the origin and cause determination:

4.6.1 Gather reports and records, given no special tools, equipment, or materials, so that all gathered documents are applicable to the investigation; complete, and authentic; the chain of custody is maintained; and the material is admissible in a legal proceeding:

(A) Requisite Knowledge: Types of reports and records that facilitate determining responsibility for the fire (e.g., police-
(B) Requisite Skills: Information assessment, correlation, and organizational skills.

4.6.5 Formulate an opinion concerning origin, cause, or responsibility for the fire, given all investigative findings, such that the opinion regarding origin, cause, or responsibility for a fire is supported by the data, facts, records, reports, documents, and evidence.

(A) Requisite Knowledge. Analytical methods and procedures (e.g., hypothesis development and testing, systems analysis, time lines, link analysis, fault tree analysis, and data reduction matrixing):

(B) Requisite Skills. Analytical and assimilation skills.

4.7 Presentations. Duties shall include the presentation of findings to those individuals not involved in the actual investigations:

4.7.1 Prepare a written report, given investigative findings, documentation, and a specific audience, so that the report accurately reflects the investigative findings, is concise, expresses the investigator’s opinion, contains facts and data that the investigator relies on in rendering an opinion, contains the reasoning of the investigator by which each opinion was reached, and meets the needs or requirements of the intended audience(s):

(A) Requisite Knowledge. Elements of writing, typical components of a written report, and types of audiences and their respective needs or requirements:

(B) Requisite Skills. Writing skills, ability to analyze information and determine the reader’s needs or requirements.

4.7.2 Express investigative findings verbally, given investigative findings, notes, a time allotment, and a specific audience, so that the information is accurate, the presentation is completed within the allotted time, and the presentation includes only need-to-know information for the intended audience:

(A) Requisite Knowledge. Types of investigative findings, the informational needs of various types of audiences, and the impact of releasing information:

(B) Requisite Skills. Communication skills and ability to determine audience needs and correlate findings.

4.7.3 Testify during legal proceedings, given investigative findings, contents of reports, and consultation with legal counsel, so that all pertinent investigative information and evidence are presented clearly and accurately and the investigator’s demeanor and attire are appropriate to the proceedings:

(A) Requisite Knowledge. Types of investigative findings, types of legal proceedings, professional demeanor requirements, and an understanding of due process and legal proceedings:

(B) Requisite Skills. Communication and listening skills and ability to differentiate facts from opinion and determine accepted procedures, practices, and etiquette during legal proceedings.

4.7.4 Conduct public informational presentations, given relevant data, so that information is accurate, is appropriate to the audience, and clearly supports the information needs of the audience:

(A) Requisite Knowledge. Types of data available regarding the fire loss problem and the issues about which the community must know:
(B) Requisite Skills. Ability to assemble, organize, and present information.

5.1 Fire Investigation Technician. The fire investigation technician shall meet all of the job performance requirements as defined in sections 5.2-5.7.

5.2 Scene Examination. Duties shall include determining the legal authority to conduct an evaluation of a fire scene and to collect evidence, establishing and maintaining scene security and scene integrity, assessing scene safety, and inspecting and evaluating the fire scene so as to assist in the determination of the area or point of origin, source of ignition, material(s) ignited, and act or activity that brought ignition source and materials together, to assist in the assessing the subsequent progression, extinguishment, and containment of the fire.

5.2.1 Determine the legal authority for conducting a scene examination given the location, conditions, and circumstances of a fire event and subsequent examination to ensure that evidence can be properly secured for introduction to court or other proceedings.

(A) Requisite Knowledge: Constitutional law, state statutes and ordinances, contract law, criminal and civil procedure, agency and organizational policies.

(B) Requisite Skill: Application of legal policy or precedent.

5.2.2 Secure the fire scene given marking devices, sufficient personnel, and special tools and equipment, so that unauthorized persons can recognize the perimeters of the investigative scene and are kept from restricted areas and all evidence or potential evidence is protected from damage or destruction.

(A) Requisite Knowledge: Fire ground hazards, types of evidence, and the importance of fire scene security.

(B) Requisite Skills: Use of marking devices.

5.2.3 Conduct an exterior survey, given sufficient personnel, and special tools and equipment, so that all hazards present are adequately identified mitigated to prevent injuries or other adverse effect, evidence is preserved, fire damage is observed and documented, and all potential means of ingress and egress are discovered.

(A) Requisite Knowledge: Types of building construction and the effects of fire on construction materials, fire ground hazards, health and safety regulations and concerns, mitigation techniques and protocols, evidence preservation.

(B) Requisite Skills: Assess fire ground and structural condition, observe damage from the effects of the fire, and locate health and safety hazards.

5.2.4 Conduct an interior survey, given standard equipment and tools, so that all hazards present are adequately identified and mitigated to prevent injuries or other adverse effect, evidence is preserved, and fire damage is observed and documented.

(A) Requisite Knowledge: Types of building construction and the effects of fire on construction materials, fire ground hazards, health and safety regulations and concerns, mitigation techniques and protocols, evidence preservation.

(B) Requisite Skills: Assess fire ground and structural condition, observe damage from the effects of the fire, and locate health and safety hazards.

5.2.5 Examine and remove fire debris, given standard equipment and tools, so that all debris is checked for fire cause evidence, potential ignition source(s) is identified, and evidence is preserved without investigator-inflicted damage or contamination.

(A) Requisite Knowledge. Basic understanding of ignition processes, characteristics of ignition sources, and ease of ignition of fuels; debris-layering techniques; use of tools and equipment during the debris search; types of fire cause evidence commonly found in various degrees of damage; and evidence-gathering methods and documentation.

(B) Requisite Skills. Employ search techniques that further the discovery of fire cause evidence and ignition sources, use search techniques that incorporate documentation, and collect and preserve evidence.

5.3 Documenting the Scene. Duties shall include diagramming the scene, photographing, and taking field notes to be used to compile a final report.

5.3.1 Diagram the scene, given standard tools and equipment, so that the scene is accurately represented and evidence, pertinent contents, significant patterns, and area(s) or point(s) of origin are identified.

(A) Requisite Knowledge. Commonly used symbols and legends that clarify the diagram, types of evidence and patterns that need to be documented, and formats for diagramming the scene.

(B) Requisite Skills. Ability to sketch the scene, basic drafting skills, and evidence recognition and observational skills.

5.3.2 Photographically document the scene, given standard tools and equipment, so that the scene is accurately depicted and the photographs support scene findings.

(A) Requisite Knowledge. Working knowledge of high resolution camera and flash, the types of storage media, and flash available, and the strengths and limitations of each.

(B) Requisite Skills. Ability to use a high-resolution camera, flash, and accessories.

5.3.3 Construct investigative notes, given a fire scene, available documents (e.g., prefire plans and inspection reports), and interview information, so that the notes are accurate, provide further documentation of the scene, and represent complete documentation of the scene findings.
(A) Requisite Knowledge. Relationship between notes, diagrams, and photos, how to reduce scene information into concise notes, and the use of notes during report writing and legal proceedings.

(B) Requisite Skills. Data-reduction skills, note-taking skills, and observational and correlating skills.

5.4 Evidence Collection/Preservation. Duties shall include using proper physical and legal procedures to retain evidence required within the investigation.

5.4.1 Collect and label evidence, given standard equipment and tools, so that it is properly identified, packaged and preserved for use in court or other proceedings with the chain of custody is established, and avoid contamination and investigator-inflicted damage to evidentiary items.

(A) Requisite Knowledge. Types of evidence, evidence collection and identification protocols and evidence preservation methods.

(B) Requisite Skills. Observational skills and the ability to apply protocols to given situations.

5.4.2 Maintain a chain of custody, given standard investigative tools, marking tools, and evidence tags or logs, so that written documentation exists for each piece of evidence and evidence is secured.

(A) Requisite Knowledge. Rules of custody and transfer procedures, types of evidence (e.g., physical evidence obtained at the scene, photos, and documents), and methods of recording the chain of custody.

(B) Requisite Skills. Ability to execute the chain of custody procedures and accurately complete necessary documents.

5.4.3 Dispose of evidence, given jurisdictional or agency regulations and file information, so that the disposal is timely, safely conducted, and in compliance with jurisdictional or agency requirements.

(A) Requisite Knowledge. Disposal services available and common disposal procedures and problems.

(B) Requisite Skills. Documentation skills.

5.5 Interview. Duties shall include obtaining information regarding the overall fire investigation from others through verbal communication.

5.5.1 Develop an interview plan, given no special tools or equipment, so that the plan reflects a strategy to further determine the fire cause and includes a relevant questioning strategy for each individual to be interviewed that promotes the efficient use of the investigator's time.

(A) Requisite Knowledge. Persons who can provide information that furthers the fire cause determination, types of questions that are pertinent and efficient to ask of different information sources (first responders, neighbors, witnesses, suspects, and so forth), and pros and cons of interviews versus document gathering.

(B) Requisite Skills. Planning skills, development of focused questions for specific individuals, and evaluation of existing file data to help develop questions and fill investigative gaps.

5.5.2 Conduct interviews, given incident information, so that pertinent information is obtained, follow-up questions are asked, responses to all questions are elicited, and the response to each question is documented accurately.

(A) Requisite Knowledge. Types of interviews, personal information needed for proper documentation or follow-up, documenting methods and tools, and types of nonverbal communications and their meaning.

(B) Requisite Skills. Adjust interviewing strategies based on deductive reasoning, interpret verbal and nonverbal communications, apply legal requirements applicable, and exhibit strong listening skills.

5.5.3 Evaluate interview information, given interview transcripts or notes and incident data, so that all interview data is individually analyzed and correlated with all other interviews, corroborative and conflictive information is documented, and new leads are developed.

(A) Requisite Knowledge. Types of interviews, report evaluation methods, and data correlation methods.

(B) Requisite Skills. Data correlation skills and the ability to evaluate source information (e.g., first responders and other witnesses).

5.6 Post-Incident Investigation. Duties shall include the investigation of all factors beyond the fire scene at the time of the origin and cause determination.

5.6.1 Gather reports and records, given no special tools, equipment, or materials, so that all gathered documents are applicable to the investigation, complete, and authentic; the chain of custody is maintained; and the material is admissible in a legal proceeding.

(A) Requisite Knowledge. Types of reports needed that facilitate determining responsibility for the fire (e.g., police reports, fire reports, insurance policies, financial records, deeds, private investigator reports, outside photos, and videos) and location of these reports.

(B) Requisite Skills. Identify the reports and documents necessary for the investigation, implement the chain of custody, and organizational skills.

5.6.2 Evaluate the investigative file, given all available file information, so that areas for further investigation are identified, the relationship between gathered documents and information is interpreted, and corroborative evidence and information discrepancies are discovered.
5.7 Presentations. Duties shall include the presentation of findings to those individuals not involved in the actual investigations.

5.7.1 Prepare a written report, given investigative findings, documentation, and a specific audience, so that the report accurately reflects the investigative findings, is concise, contains facts and data that the investigator has identified, and meets the needs or requirements of the intended audience(s).

(A) Requisite Knowledge. Elements of writing, typical components of a written report, and types of audiences and their respective needs or requirements.

(B) Requisite Skills. Writing skills, ability to analyze information and determine the reader’s needs or requirements.

5.7.2 Express investigative findings verbally, given investigative findings, notes, and a specific audience, so that the information is accurate and information is presented in a clear, concise and logical manner with only need-to-know information for the intended audience.

(A) Requisite Knowledge. Types of investigative findings, the informational needs of various types of audiences, and the impact of releasing information.

(B) Requisite Skills. Communication skills and ability to determine audience needs and correlate findings.

6.1 Fire Investigator in addition to the skills outlined in paragraphs 5.2-5.7, the fire investigator shall meet the job performance requirements outlined in paragraphs 6.2-6.7.

6.2 Scene Documentation. The fire investigator shall coordinate the activities of the investigative team and manage resources, so as to determine the area or point of origin, source of ignition, material(s) ignited, and the act or activity that brought the ignition source and materials together and to assess the subsequent progression, extinguishment, and containment of the fire. When the actual scene is no longer available, the investigator should examine all available documentation and information that would assist the determination of origin and cause.

6.2.1 Interpret fire patterns, given standard equipment and tools and some structural or content remains, so that each individual pattern is evaluated in relation to all other patterns and that the mechanisms of heat transfer that resulted in the development of the pattern are interpreted and analyzed in relation to the burning characteristics of the material involved.

(A) Requisite Knowledge. Fire dynamics, fire development, and the interrelationship of heat release rate, form, and ignitibility of materials.

(B) Requisite Skills. Interpret the effects of burning characteristics on different types of materials.

6.2.2 Interpret and analyze fire patterns, given standard equipment and tools and some structural or content remains, so that fire development is determined, methods and effects of suppression are evaluated, false origin area patterns are recognized, and all areas of origin are correctly identified.

(A) Requisite Knowledge. Fire behavior and spread based on fire chemistry, fire dynamics, and physics, fire suppression effects, building construction.

(B) Requisite Skills. Interpret variations of fire patterns on different materials with consideration given to heat release rate, form, and ignitibility; distinguish impact of different types of fuel loads; evaluate fuel trails; and analyze and synthesize information.

6.2.3 Reconstruct the area of origin, given standard and, if needed, special equipment and tools as well as sufficient personnel, so that all protected areas and fire patterns are identified and correlated to contents or structural remains, items potentially critical to cause determination and photo documentation are returned to their prefire location, and the area(s) or point(s) of origin is discovered.

(A) Requisite Knowledge. The effects of fire on different types of material and the importance and uses of reconstruction.

(B) Requisite Skills. Examine all materials to determine the effects of fire, identify and distinguish among different types of fire-damaged contents, and return materials to their original position using protected areas and fire patterns.

6.2.4 Inspect the performance of building systems, including detection, suppression, HVAC, utilities, and building compartmentation, given standard and special equipment and tools, so that a determination can be made as to the need for expert resources, an operating system’s impact on fire growth and spread is considered in identifying origin areas, defeated and/or failed systems are identified, and the system’s potential as a fire cause is recognized.

(A) Requisite Knowledge. Different types of detection, suppression, HVAC, utility, and building compartmentation such as fire walls and fire doors; types of expert resources for building systems; the impact of fire on various systems; common methods used to defeat a system’s functional capability; and types of failures.

(B) Requisite Skills. Determine the system’s operation and its effect on the fire; identify alterations to, and failure indicators of, building systems; and evaluate the impact of suppression efforts on building systems.
6.2.4 Discriminate the effects of explosions from other types of damage, given standard equipment and tools, so that an explosion is identified and its evidence is preserved.

(A) Requisite Knowledge. Different types of explosions and their causes, characteristics of an explosion, and the difference between low- and high-order explosions.

(B) Requisite Skills. Identify explosive effects on glass, walls, foundations, and other building materials; distinguish between low- and high-order explosion effects; and analyze damage to document the blast zone and origin.

6.3 Documenting the Scene. Duties shall include the utilization of advanced techniques in diagramming and measuring the scene, photography, and taking field notes to be used to compile a final report.

6.3.1 Utilize proper procedures to identify and document victims and fatalities, given a protocol and appropriate personnel, so that all information is preserved and the protocol procedures are followed.

(A) Requisite Knowledge. Types of evidence associated with fire victims and fatalities; processing methods of fire victims and fatalities

(B) Requisite Skills. Observational skills and abilities to apply protocols to a given situation

6.3.2 Identify, document and measure the fire scene, given standard or special tools and equipment, so that the scene can be properly diagrammed in computer aided drafting equipment and used in advanced analysis, including fire modeling

(A) Requisite Knowledge. Measurement procedures and protocols, commonly used symbols and legends, formats for diagramming scene

(B) Requisite Skills. Ability to utilize measuring devices, ability to use computer software systems

6.4 Evidence Collection/Preservation. Duties shall include using proper physical and legal procedures to identify, collect, retain and examine evidence required within the investigation in accordance with proper policies, procedures, and legal guidelines.

6.4.1 Utilize proper procedures for managing victims and fatalities, given a protocol and appropriate personnel, so that all evidence is discovered and preserved and the protocol procedures are followed.

(A) Requisite Knowledge. Types of evidence associated with fire victims and fatalities and evidence preservation methods.

(B) Requisite Skills. Observational skills and the ability to apply protocols to given situations.

6.4.2* Locate, collect, and package evidence, given standard or special tools and equipment and evidence collection materials, so that evidence is identified, preserved, collected, and packaged to avoid contamination and investigator-inflicted damage and the chain of custody is established.

(A) Requisite Knowledge. Types of evidence, authority requirements, impact of removing evidentiary items on civil or criminal proceedings (exclusionary or fire-cause supportive evidence), types, capabilities, and limitations of standard and special tools used to locate evidence, types of laboratory tests available, packaging techniques and materials, and impact of evidence collection on the investigation.

(B) Requisite Skills. Ability to recognize different types of evidence and determine whether evidence is critical to the investigation.

6.4.3 Select evidence for analysis given all information from the investigation, so that items for analysis support specific investigation needs.

(A) Requisite Knowledge. Purposes for submitting items for analysis, types of analytical services available, and capabilities and limitations of the services performing the analysis.

(B) Requisite Skills. Evaluate the fire incident to determine forensic, engineering, or laboratory needs.

6.5 Interview. Duties shall include obtaining information regarding the overall fire investigation from others through verbal communication so that responsibility can be assigned.

6.5.1 Develop an interview plan, given no special tools or equipment, so that the plan reflects a strategy to further determine the fire cause and affix responsibility and includes a relevant questioning strategy for each individual to be interviewed that promotes the efficient use of the investigator's time.

(A) Requisite Knowledge. Persons who can provide information that furthers the fire cause determination or the affixing of responsibility, types of questions that are pertinent and efficient to ask of different information sources (first responders, neighbors, witnesses, suspects, and so forth), and pros and cons of interviews versus document gathering.

(B) Requisite Skills. Planning skills, development of focused questions for specific individuals, and evaluation of existing file data to help develop questions and fill investigative gaps.

6.5.2 Conduct interviews, given incident information, so that pertinent information is obtained, follow-up questions are asked, responses to all questions are elicited, and the response to each question is documented accurately.

(A) Requisite Knowledge. Types of interviews, personal information needed for proper documentation or follow-up, documenting methods and tools, and types of nonverbal communications and their meaning.

(B) Requisite Skills. Adjust interviewing strategies based on deductive reasoning, interpret verbal and nonverbal
communications, apply legal requirements applicable, and exhibit strong listening skills.

6.6 Post-Incident Investigation. Duties shall include the investigation of all factors beyond the fire scene at the time of the origin and cause determination including efforts to determine and assign responsibility.

6.6.1 Coordinate expert resources, given the investigative file, reports, and documents, so that the expert’s competencies are matched to the specific investigation needs, financial expenditures are justified, and utilization clearly furthers the investigative goals of determining cause or affixing responsibility.

(A) Requisite Knowledge. How to assess one’s own expertise, qualification to be called for expert testimony, types of expert resources (e.g., forensic, CPA, polygraph, financial, human behavior disorders, and engineering), and methods to identify expert resources.

(B) Requisite Skills. Apply expert resources to further the investigation by networking with other investigators to identify experts, questioning experts relative to their qualifications, and developing a utilization plan for use of expert resources.

6.6.2 Establish evidence as to motive and/or opportunity, given an incendiary fire, so that the evidence is supported by documentation and meets the evidentiary requirements of the jurisdiction.

(A) Requisite Knowledge. Types of motives common to incendiary fires, methods used to discover opportunity, and human behavioral patterns relative to fire-setting.

(B) Requisite Skills. Financial analysis, records gathering and analysis, interviewing, and interpreting fire scene information and evidence for relationship to motive and/or opportunity.

6.6.3* Formulate an opinion concerning origin, cause, or responsibility for the fire, given all investigative findings, so that the opinion regarding origin, cause, or responsibility for a fire is supported by the data, facts, records, reports, documents, and evidence.

(A) Requisite Knowledge. Analytical methods and procedures (e.g., hypothesis development and testing, systems analysis, time lines, link analysis, fault tree analysis, and data reduction matrixing).

(B) Requisite Skills. Analytical and assimilation skills.

6.7 Presentations. Duties shall include the presentation of findings to those individuals not involved in the actual investigations and includes the recording of opinions with proper supporting justification.

6.7.1* Prepare a written report, given investigative findings, documentation, and a specific audience, so that the report accurately reflects the investigative findings, is concise, expresses the investigator's opinion, contains facts and data that the investigator relies on in rendering an opinion, contains the reasoning of the investigator by which each opinion was reached, and meets the needs or requirements of the intended audience(s).

(A) Requisite Knowledge. Elements of writing, typical components of a written report, and types of audiences and their respective needs or requirements.

(B) Requisite Skills. Writing skills, ability to analyze information and determine the reader's needs or requirements.

6.7.2 Testify during legal proceedings, given investigative findings, contents of reports, and consultation with legal counsel, so that all pertinent investigative information and evidence are presented clearly and accurately and the investigator’s demeanor and attire are appropriate to the proceedings.

(A) Requisite Knowledge. Types of investigative findings, types of legal proceedings, professional demeanor requirements, and an understanding of due process and legal proceedings.

(B) Requisite Skills. Communication and listening skills and ability to differentiate facts from opinion and determine accepted procedures, practices, and etiquette during legal proceedings.

Substantiation: This recommendation is to establish a tier of performance levels, providing for a progressive career development track for the position of fire investigator. It allows for the meeting of established interim milestones while clearly moving toward the full performance level of the fire investigator position and is consistent with the developmental hierarchy or levels of job performance requirements outlined in other NFPA Standards.

Committee Meeting Action: Reject

Committee Statement: The committee believes the proposal is outside the committee and document scope.
Conduct public informational presentations, given relevant data, so that information is accurate, is appropriate to the audience, and clearly supports the information needs of the audience.

(A) Requisite Knowledge. Types of data available regarding the fire loss problem and the issues about which the community must know:

(B) Requisite Skills. Ability to assemble, organize, and present information.

Substantiation: Some aspects of 4.7.4 regarding preparing a presentation for delivery to the needs of the audience are redundant with paragraph 4.7.2. Additionally public information presentations are not a critical skill necessary to conduct competent fire scene investigations and should not be part of the core competencies. This skill set is more appropriately addressed in the NFPA 1035 Standard for Professional Qualifications for Public Fire and Life Safety Educator.

Committee Meeting Action: Accept

Duties shall include inspecting and evaluating the fire scene, or evidence of the scene conducting a comprehensive review of documentation generated during the original examination of the scene if the scene is no longer available, so as to determine the area or point of origin, source of ignition, material(s) ignited, and act or activity that brought ignition source and materials together and to assess the subsequent progression, extinguishment, and containment of the fire.

The new language adds clarity as to what should be examined when the scene is not otherwise available by replacing evidence with documentation.

Committee Meeting Action: Accept in Principle

Revise text to read as follows:

Duties shall include inspecting and evaluating the fire scene, or evidence of the scene, and/or conducting a comprehensive review of documentation generated during the examination(s) of the scene if the scene is no longer available, so as to determine the area or point of origin, source of ignition, material(s) ignited, and act or activity that brought ignition source and materials together and to assess the subsequent progression, extinguishment, and containment of the fire.

Committee Statement: The committee agrees with the concept of the proposals and added additional information for clarity.
1033-21 Log #54 PQU-FIV
(1.3.8) Final Action: Reject

Submitter: Robert Schaal, Metairie, LA
Recommendation: Revise text to read as follows:

1.3.8* The investigator shall have and maintain at a minimum an up-to-date basic knowledge concerning the study of fire and related subjects (such as combustion, flame, products of combustion, heat release, heat transfer, fire and explosion chemistry, fire and explosion dynamics, thermodynamics, kinetics, fluid mechanics, fire safety) and their interaction with people, structures, and their environment of the following topics beyond the high school level at a post-secondary education level:

(1) Fire science
(2) Fire chemistry
(3) Thermodynamics
(4) Thermometry
(5) Fire dynamics
(6) Explosion dynamics
(7) Computer fire modeling
(8) Fire investigation
(9) Fire analysis
(10) Fire investigation methodology
(11) Fire investigation technology
(12) Hazardous materials
(13) Failure analysis and analytical tools

Substantiation: This is designed to bring required knowledge of fire science consistent with the definition of fire science in NFPA 921. While there are many ancillary and fringe sciences that can be utilized during the course of fire investigation or subsequent fire testing, there is the potential for misunderstanding and overly broad interpretation of certain subsets of the existing list of topics.

Committee Meeting Action: Reject
Committee Statement: This proposal fails to include the multitude of other topics which a fire investigator must know. See Committee Action in Committee Proposal 1033- (Log #CP5).

1033-56 Log #55 PQU-FIV
(A.1.3.8) Final Action: Reject

Submitter: Robert Schaal, Metairie, LA
Recommendation: Revise text to read as follows:

A.1.3.8 Basic up-to-date information on these topics can be found in the current edition of NFPA 921 as well as other published authoritative treatises and documents related to fire investigation, fire science, and fire dynamics.

Substantiation: NFPA 921 is not the only source document that is available to help the users of this document garner the necessary "basic up to date information" on fire investigation and fire science. It should be clear that it is acceptable (and possible) to use other text and documents as a source of self improvement.

Committee Meeting Action: Reject
Committee Statement: The committee believes that NFPA 921, Guide for Fire and Explosion Investigations, provides the reader with basic up-to-date information. NFPA 921 also has lists of other documents that can provide the reader with additional information.
Submitters: Robert Schaal, Metairie, LA
Recommendation: Add new text to read as follows:

A.4.2 Documents reviewed when a scene is not otherwise available should include incident reports, notes, photographs, diagrams and sketches, evidence, witness statements, test results, laboratory reports and other information that would assist in the determination of a point of origin, source of ignition and act or activity that brought the materials together.

Substantiation: This new language adds further definition and clarity as to what should be included during a scene review when the scene is otherwise not available for examination.

Committee Meeting Action: Accept in Principle

Revise and add new text to read as follows:

A.4.2 Documents reviewed when a scene is not otherwise available may include but not be limited to incident reports, notes, photographs, diagrams and sketches, evidence, witness statements, test results, laboratory reports and other information that would assist in the determination of the origin and cause.

Committee Statement: The committee agrees with the concept but clarified the language.
Submittal: Technical Committee on Fire Investigator Professional Qualifications,

Recommendation: Revise text to read as follows:

C.1.1 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.


C.1.2.1 ASTM Publications. ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

Substantiation: Update reference material.

Committee Meeting Action: Accept
Submitters: Technical Committee on Fire Investigator Professional Qualifications,

Recommendation: Change the text order and numbering of the current sections 1.3.7; A.1.3.7; 1.3.8; and A.1.3.8 as indicated. Add a definition of Fire Investigation Technology to Chapter 3.

1.3.7 The fire investigator shall remain current with investigation methodology, fire protection technology, and code requirements in the topics listed in section 1.3.7 by attending formal education courses, workshops and seminars and/or through professional publications and journals.

A.1.3.8 Fire investigation technology and practices are changing rapidly. It is essential for an investigator's performance and knowledge to remain current. It is recommended that investigators be familiar with the technical information.

1.3.7 The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level:

1. Fire science
2. Fire chemistry
3. Thermodynamics
4. Thermometry
5. Fire dynamics
6. Explosion dynamics
7. Computer fire modeling
8. Fire investigation
9. Fire analysis
10. Fire investigation methodology
11. Fire investigation technology
12. Hazardous materials
13. Failure analysis and analytical tools
14. Fire protection systems
15. Evidence documentation, collection, and preservation
16. Electricity and electrical systems

A.1.3.8 Basic up-to-date information on these topics can be found in the current edition of NFPA 921 Guide for Fire and Explosion Investigations. NFPA 921 is written on a basic level for competency in fire and explosion investigation and updated on a three year cycle "to establish guidelines and recommendations for the safe and systematic investigation or analysis of fire and explosion incidents" and "is designed to produce a systematic, working framework or outline by which effective fire and explosion investigation and origin and cause analysis can be accomplished." As stated in NFPA 921 "[I]t is not intended as a comprehensive scientific or engineering text... many scientific and engineering concepts are presented within the text, the user is cautioned that these concepts are presented at an elementary level and additional technical sources, training, and education may often need to be utilized in an investigation. The documents or portions thereof listed in this [document] are referenced within this guide and shall be considered part of the requirements of this document."

3.3 Fire Investigation Technology. Applied technology subjects related to and used in fire investigation including, but not limited to, specialized knowledge and skills in: documentation of the investigation; scene and evidence processing; and failure analysis and analytical tools.

Substantiation: The committee believes that these changes, deletions and additions to the current text make the concept of the fire investigator's basic minimum and up-to-date requisite knowledge base beyond a high school level more comprehensive, clear, succinct, and easier to understand. These listed topics are intended to form a supportive knowledge base for the application of the JPRs in Chapter 4.

Committee Meeting Action: Accept