



National Fire Protection Association

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ROP Meeting Agenda

NFPA Technical Committee on Animal Housing Facilities

Live Meeting/Conference Call
Toll Free Dial-In Number: 877-320-2367
Participant Code: 5163530

1. Call to Order.

Call the meeting to order by Chair Bradford Cronin at 9:30 a.m. on Thursday, July 8, 2010.

2. Introduction of Attendance. For a committee roster. See page 2.

3. Approval of Minutes. Approve the March 25, 2008 meeting minutes. See pages 6-7.

4. NFPA 150 ROP Preparation

- Public Proposals. See pages 8-26.

5. New Business.

6. Date and location of next meeting.

7. Adjournment.

Address List No Phone

7/6/2010
Tracy L. Golinveaux
ASF-AAA

Animal Housing Facilities

Bradford T. Cronin Chair Newport Fire Department 21 West Marlborough Street Newport, RI 02840	E 11/2/2006 ASF-AAA	Clay P. Aler Principal Koffel Associates, Inc. 6522 Meadowridge Road, Suite 101 Elkridge, MD 21075	SE 11/2/2006 ASF-AAA
Michael J. Biel Principal Sprinkler Fitters Local Union 183 6653 Channel Road Waterford, WI 53185 United Assn. of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry	L 1/10/2008 ASF-AAA	Richard R. Brown Principal Brown Sprinkler Corporation 4705 Pinewood Drive Louisville, KY 40218 National Fire Sprinkler Association Alternate: David A. Smith	M 7/14/2004 ASF-AAA
Daren Canfield Principal Chubb Group of Insurance Companies 1 Financial Center Boston, MA 02111 Alternate: Thomas A. Nappo	I 1/14/2005 ASF-AAA	Hal Cohen Principal HCC and Associates, Inc. 3 Mill Park Court Newark, DE 19713	SE 7/23/2008 ASF-AAA
Mary Julie Corrigan Principal Harvard University Environmental Health & Safety Department HIM Building 4 Blackfan Circle Boston, MA 02115	U 1/14/2005 ASF-AAA	Michael A. Crowley Principal The RJA Group, Inc. Rolf Jensen & Associates, Inc. 13831 Northwest Freeway, Suite 330 Houston, TX 77040-5215 Alternate: Peter C. Harrod	SE 3/4/2008 ASF-AAA
Marion C. Filippi Principal Ballard's Farm, LLC 1092 Great Road Lincoln, RI 02865	U 9/30/2004 ASF-AAA	Ajay Gulati Principal Smithsonian Institution 600 Maryland Avenue, Suite 7106 Washington, DC 20013	U 4/14/2005 ASF-AAA
Steven J. Heckman, Jr. Principal The Jackson Laboratory 600 Main Street Bar Harbor, ME 04609	U 3/15/2007 ASF-AAA	Todd B. Hohbein Principal State of Utah Fire Marshal's Office 435 North Main Street LaVerkin, UT 84745	E 3/21/2006 ASF-AAA
Karl D. Houser Principal EBL Engineers, LLC EBL Fire Engineering 8005 Harford Road Baltimore, MD 21234-5701 Alternate: Jeffery P. McBride	SE 7/14/2004 ASF-AAA	James F. Jaracz Principal Hobart Fire Department 2 Sycamore Lane Hobart, IN 46342	E 10/27/2009 ASF-AAA

Address List No Phone

7/6/2010
Tracy L. Golinveaux
ASF-AAA

Animal Housing Facilities

Lisa C. Lee Principal New York Department of State Office of Fire Prevention & Control 240 North Green Road Fultonville, NY 12072	E 7/14/2004 ASF-AAA	Laurie Loveman Principal 17095 Abbey Road Chagrin Falls, OH 44023-1313	SE 7/19/2002 ASF-AAA
Bonnie E. Manley Principal American Iron and Steel Institute 41 Tucker Road Norfolk, MA 02056	M 3/21/2006 ASF-AAA	Mark S. Rosenberger Principal Los Alamos National Security, LLC PO Box 1663, M702 Los Alamos, NM 87545	SE 3/15/2007 ASF-AAA
Joe Scibetta Principal BuildingReports 1325 Satellite Boulevard, Suite 1607 Suwanee, GA 30024	M 8/5/2009 ASF-AAA	Lyn A. Spinella Principal Brookside Equestrian Center 9 Kendall Drive Lincoln, RI 02865	U 7/23/2008 ASF-AAA
Andrew K. Sullivan Principal The Protectowire Company, Inc. 40 Grissom Road Plymouth, MA 02360-7205	M 3/4/2009 ASF-AAA	Richard J. Swanson Principal AstraZeneca Pharmaceuticals 50 Otis Street, Mail Stop 5B Westborough, MA 01581	C 7/14/2004 ASF-AAA
Philip Trzcinski Principal No-Burn Inc. 510 Melvin Road Utica, NY 13502	M 10/27/2009 ASF-AAA	Donald H. J. Turno Principal Savannah River Nuclear Solutions, LLC 142 Dalmatian Drive Aiken, SC 29803	U 10/23/2003 ASF-AAA
Peter C. Harrod Alternate The RJA Group, Inc. Rolf Jensen & Associates, Inc. 1661 Worcester Road, Suite 501 Framingham, MA 01701 Principal: Michael A. Crowley	SE 3/4/2008 ASF-AAA	Jeffery P. McBride Alternate EBL Engineers, LLC EBL Fire Engineering 8005 Harford Road Baltimore, MD 21234-5701 Principal: Karl D. Houser	SE 7/14/2004 ASF-AAA
Thomas A. Nappo Alternate Chubb Group of Insurance Companies 7733 Forsyth, Suite 1300 Clayton, MO 63105 Principal: Daren Canfield	I 1/14/2005 ASF-AAA	David A. Smith Alternate Aero Plumbing and Heating 10 Leah Street Johnston, RI 02919 National Fire Sprinkler Association Principal: Richard R. Brown	M 7/26/2007 ASF-AAA

Address List No Phone

7/6/2010
Tracy L. Golinveaux
ASF-AAA

Animal Housing Facilities

Peter A. Boving	U 7/26/2007	Tracy L. Golinveaux	01/04/2010
Nonvoting Member	ASF-AAA	Staff Liaison	ASF-AAA
National Cancer Institute-Frederick PO Box B Frederick, MD 21702		National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7471	



**ROC Meeting Minutes
Technical Committee on Animal Housing Facilities
March 25, 2008
Teleconference**

1. Call to Order.

The committee Chair, Bradford Cronin called the meeting to order at 9:35 AM on Tuesday March 25, 2008.

2. Approval of Minutes of June 28, 2007 ROP Meeting.

Minutes of the last meeting on June 28, 2007 was approved by the committee members with one correction. Item 8 stated that Bradford Cronin, the Chair submitted a comment to NFPA 101 Technical Committee. This should be changed to read NFPA 1 Technical Committee.

3. Attendance.

The following Technical Committee Principal and Alternate members were present:

NAME	COMPANY
Bradford Cronin, Chair	Newport Fire Department
Clay Aler, Principal	Koffel Associates, Inc
Richard Brown, Principal	Brown Sprinkler Corporation
Daren Canfield, Principal	Chubb Group of Insurance Companies
Michael Crowley, Principal	RJA Group, Inc.
Marion Filippi, Principal	Ballard's Farm, LLC
Ajay Gulati, Principal	Smithsonian Institution
Steven Heckman, Principal	The Jackson Laboratory
Karl Houser, Principal	EBL Engineers, LLC
Laurie Loveman, Principal	Village of Highland Hills Ohio Fire Department
Richard Swanson, Principal	AstraZeneca Pharmaceuticals
Donald H. J. Turno, Principal	Washington Savannah River Company
David Smith, Alternate to R. Brown	Aero Plumbing and Heating

The Following Technical Committee Principal Members were absent:

NAME	COMPANY
Michael Biel, Principal	Sprinkler Fitters Local Union 183
Mary Julie Corrigan, Principal	Harvard University
Todd B. Hohbein, Principal	State of Utah Fire Marshal's Office
Lisa C. Lee, Principal	New York Department of State
Bonnie E. Manley, Principal	American Iron and Steel Institute
Mark Rosenberger, Principal	JDB Engineering, Inc.

The following NFPA Staff was in attendance:

Hossein Davoodi

4. Discussion of the Status of Proposals for NFPA 5000 and NFPA 101.

The Chair informed the Technical Committee about the status of proposals which were submitted by Tim Hawthorne, the previous chair, to NFPA 5000 and NFPA 101 technical committees. These proposals were accepted in principal.

5. Discussion on Re-organizing NFPA 150.

The Technical Committee discussed re-organization of NFPA 150 similar to arrangement of NFPA 30. The Technical Committee decided to form a task group to investigate the re-organization of the Table 7.2.2 of NFPA 150. The task group will report back to the Technical Committee in six months. Members of this task group are Clay Aler, Karl Houser, Daren Canfield and Steve Hickman.

6. Preparation of NFPA 150 Report on Comments.

The Technical Committee reviewed and acted on 3 public comments on NFPA 150.

7. New Business.

No new business was discussed.

8. Date and Location of Next Meeting.

It was decided that the Technical Committee should plan on another conference call in September of 2008 after Labor Day.

9. Adjournment.

The Chair, Bradford Cronin, adjourned the meeting at 10:40 AM on Tuesday March 25, 2008.

150- Log #CP1
(Entire Document)

Final Action:

Submitter: Technical Committee on Animal Housing Facilities,

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.

150- Log #1
(1.3.5)

Final Action:

Submitter: Eddie Phillips, Southern Regional Fire Code Development Committee

Recommendation: Add new text as follows:

1.3.5 Existing facilities shall comply with NFPA 1, *Fire Code* and NFPA 101, *Life Safety Code*.

Substantiation: There appears to be a gap in the current standard at the application of the standard is only to new facilities and existing facilities undergoing a change of the types listed in 1.3.3. The owner, occupant, and AHJ are left without guidance as to what standards apply to an existing facility not meeting the list in Section 1.3.3. NFPA 150 does contain some requirements that would fall into the classification of applying to an existing facility, such as interior finish, requirements for the storage of flammable and combustible liquids, placement of fire extinguishers, heating/cooking, maintenance and testing, drills and emergency management program, there is no ability for the AHJ to enforce these provisions on an existing facility as the scope and application of NFPA 150 do not apply to existing facilities. This code change would clarify that exiting facilities must be provided with basic egress and fire protection by complying with NFPA 1 or NFPA 101. In lieu of accepting this code change, the NFPA 150 could revise the scope, application, and respective chapters of NFPA 150 to ensure that the document addresses all aspects of life safety and property preservation in existing facilities.

150- Log #5
(1.4)

Final Action:

Submitter: Bob Foote, Town of Georgetown / Rep. NFPA Building Code Development Committee (BCDC)

Recommendation: Revise text as follows:

1.4 Retroactivity. The provisions of this standard ~~reflect a consensus of what is necessary to provide an acceptable degree of protection from the hazards addressed in this standard at the time the standard was issued.~~

Substantiation: Note: This proposal was developed by the proponent as a member of the Building Code Development Committee (BCDC) with the committee's endorsement.

This is unnecessary and unenforceable text. If the technical committee wants to keep the text, it would be more appropriate in the annex.

150- Log #6
(1.5)

Final Action:

Submitter: Steven F. Wydeveld, Village of Homer Glen / Rep. NFPA Building Code Development Committee (BCDC)

Recommendation: Revise the text as follows:

~~1.5 Equivalency. Nothing in this standard is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this standard:~~

~~1.5.1 Technical documentation shall be submitted to the authority having jurisdiction to demonstrate equivalency.~~

~~1.5.2 The system, method, or device shall be approved for the intended purpose by the authority having jurisdiction.~~

~~1.5.3 Alternative systems, methods, or devices approved as equivalent by the authority having jurisdiction shall be recognized as being in compliance with this standard.~~

1.5.1 General. Nothing in this Standard shall prohibit methods of construction, materials, and designs not specifically prescribed in this ~~Code~~ Standard where equivalent alternatives are approved by the authority having jurisdiction (AHJ).

1.5.2 Approval of Alternatives. Alternative systems, methods, or devices approved as equivalent by the authority having jurisdiction shall be recognized as being in compliance with this Standard.

1.5.3 Tests.

1.5.3.1 Whenever the authority having jurisdiction determines that there is insufficient evidence of proof of equivalency with the prescribed requirements of this Standard, the authority having jurisdiction shall be authorized to require tests showing proof of equivalency.

1.5.3.2 Tests required by the authority having jurisdiction shall be provided by the owner at no expense to the jurisdiction.

1.5.3.3 Tests shall be conducted as specified in this Standard or, where test methods are not specified in this Standard, they shall be conducted as required by the authority having jurisdiction.

Substantiation: Note: This proposal was developed by the proponent as a member of the Building Code Development Committee (BCDC) with the committee's endorsement.

This language is extracted from NFPA 5000. This expanded text provides more breadth and assists the AHJ in making a more informed decisions where needed. It also provides consistency between NFPA's fire codes.

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

NFPA 5000.

150- Log #9
(2.3.3)

Final Action:

Submitter: Bob Eugene, Underwriters Laboratories Inc.

Recommendation: Revise text to read as follows:

2.3.3 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

ANSI/UL 723, Standard for Test of Surface Burning Characteristics of Building Material, ~~2005~~ 2008.

Substantiation: Update referenced standard to include most recent revisions.

150- Log #7
(6.2)

Final Action:

Submitter: Salvatore DiCristina, Rutgers University / Rep. NFPA Building Code Development Committee (BCDC)

Recommendation: Revise text as follows:

6.2.3.3 Separated Subclassification. A separated subclassification facility shall be a multiple subclassification facility where the subclassifications are separated by ~~fire resistance-rated assemblies~~ fire barriers in accordance with NFPA 101 or NFPA 5000.

Also, revise Section 6.2.6.1 as follows:

6.2.6.1 Where separated subclassifications are provided, each part of the structure comprising a distinct subclassification, as described in this chapter, shall be completely separated from other subclassifications by ~~fire-resistive assemblies~~ fire barriers in accordance with NFPA 101 or NFPA 5000 as specified in ~~6.2.6.1.1, 6.2.6.1.2, 6.2.6.2, and 6.2.6.3 and Table 6.2.6.1~~, unless separation is provided by approved existing separations.

Also, delete Section 6.2.6.2 and Section 6.2.6.3 as follows:

~~**6.2.6.2** Subclassification separations shall be vertical, horizontal, or both, or, when necessary, of such other form as required to provide complete separation between subclassification divisions in the structure:~~

~~**6.2.6.3** Where the subclassification separation is horizontal, structural members supporting the separation shall be protected by an equivalent fire-resistive construction:~~

Also, add a footnote to Table 6.2.6.1 to read:

1. See Section 6.2.6.1.2 for fire resistance rating reductions.

Substantiation: Note: This proposal was developed by the proponent as a member of the Building Code Development Committee (BCDC) with the committee's endorsement.

This section describes Fire Barriers but does not use the term. This change will provide for consistency between NFPA 150 and 101/5000 which are referenced as the documents to be followed for construction of these barriers and thereby avoiding the installation of an inappropriate fire resistive construction feature. As currently written, a fire partition could be constructed rather than a fire barrier, which is not desired. Sections 6.2.6.2 and 6.2.6.3 should be eliminated because the performance criteria for fire barriers is found in the referenced documents (NFPA 101 and 5000). These provisions are located in chapter 6 in NFPA 101 and NFPA 5000.

150- Log #13
(Table 7.2.2)

Final Action:

Submitter: Clay P. Aler, Koffel Associates, Inc.
Recommendation:

INSERT TABLE 7.2.2 HERE

Substantiation: The proposed revisions to the height and area limitations are more consistent with the International Building code (IBC) and NFPA 5000. The current table in most cases is overly restrictive thus prohibiting its adoption by state and local authorities.

Table 7.2.2

		I (442)	I (442)	I (332)	I (332)	I (222)	II (222)	II (111)	II (111)	II (000)
		S	N	S	N	S	N	S	N	S
Construction Type										
Sprinkler or										
Nonsprinklered										
Class 1 Facilities										
Category A Animals	Stories	UL	NP	UL	NP	12	NP	5 <u>6</u>	NP	4
	Area (1000 ft2)	UL	NP	UL	NP	UL	NP	UL <u>75</u>	NP	UL <u>46</u>
Category B Animals	Stories	UL	UL	UL	UL	12	11	5 <u>6</u>	4 <u>5</u>	4
	Area (1000 ft2)	UL	90	UL	90	UL	90	UL <u>75</u>	64 <u>37.5</u>	UL <u>46</u>
Class 2 Facilities										
Category A Animals	Stories	UL	NP	UL	NP	12	NP	5	NP	4 <u>3</u>
	Area (1000 ft2)	UL	NP	UL	NP	UL	NP	UL <u>43</u>	NP	UL <u>25</u>
Category B Animals	Stories	UL	UL	UL	UL	12	11	5	4	4 <u>3</u>
	Area (1000 ft2)	UL	45	UL	45	UL	45	UL <u>43</u>	32 <u>21.5</u>	UL <u>25</u>
Class 3 Facilities										
Category A Animals	Stories	UL	NP	UL	NP	12	NP	5 <u>4</u>	NP	4 <u>3</u>
	Area (1000 ft2)	UL	NP	UL	NP	UL	NP	UL <u>31</u>	NP	UL <u>19</u>
Category B Animals	Stories	UL	UL	UL	UL	12	11	5 <u>4</u>	4 <u>3</u>	4 <u>3</u>
	Area (1000 ft2)	UL	45	UL	45	UL	45	UL <u>31</u>	32 <u>15.5</u>	UL <u>19</u>
II (000)	III (211)	III (211)	III (200)	III (200)	IV (2HH)	IV (2HH)	V (III)	V (111)	V (000)	V (000)
N	S	N	S	N	S	N	S	N	S	N
NP	4 <u>6</u>	NP	4	NP	5 <u>6</u>	NP	4	NP	2 <u>3</u>	NP
NP	40 <u>57</u>	NP	40 <u>38</u>	NP	UL <u>72</u>	NP	32 <u>36</u>	NP	32 <u>18</u>	NP
NP	3 <u>4</u>	NP	4	NP	5 <u>6</u>	NP	4	NP	2 <u>3</u>	NP
NP	23 <u>40</u>	NP	28.5 <u>38</u>	NP	UL <u>72</u>	NP	32 <u>36</u>	NP	18 <u>18</u>	NP
NP	4.5	NP	4.3	NP	5	NP	4	NP	2	NP
NP	20 <u>37</u>	NP	20 <u>25</u>	NP	UL <u>41</u>	NP	46 <u>28</u>	NP	46 <u>18</u>	NP
NP	2 <u>4</u>	NP	4 <u>3</u>	NP	5	NP	4	NP	2	NP
NP	12.5 <u>20</u>	NP	18.5 <u>25</u>	NP	UL <u>41</u>	NP	20.5 <u>28</u>	NP	14 <u>18</u>	NP
NP	4	NP	4 <u>3</u>	NP	5 <u>4</u>	NP	4 <u>3</u>	NP	2	NP
NP	20 <u>28</u>	NP	20 <u>19</u>	NP	UL <u>30</u>	NP	46 <u>23</u>	NP	46 <u>12</u>	NP
NP	4	NP	4 <u>3</u>	NP	5.4	NP	3	NP	2	NP
NP	2 <u>4</u>	NP	2 <u>3</u>	NP	5.4	NP	3	NP	2	NP
NP	9.5 <u>20</u>	NP	14 <u>19</u>	NP	9.5 <u>30</u>	NP	15 <u>23</u>	NP	11.5 <u>12</u>	NP

150- Log #2
(7.8)

Final Action:

Submitter: Eddie Phillips, Southern Regional Fire Code Development Committee

Recommendation: Add new text as follows:

7.8 Water Supplies and Fire Department Access. Water supplies for fire protection and access for fire apparatus shall be in accordance with NFPA 1, *Fire Code*.

Substantiation: NFPA 150 is current mute on site design issues although the user and AHJ could get to NFPA 1 via the referenced publication list in 2.2. However, inclusion of this language would provide an important pointer to the code's users.

150- Log #3
(9.2.4)

Final Action:

Submitter: Eddie Phillips, Southern Regional Fire Code Development Committee

Recommendation: Add new text as follows:

9.2.4 Automatic sprinkler systems shall be arranged to transmit the alarm automatically via any of the following means acceptable to the authority having jurisdiction and shall be in accordance with NFPA 72, National Fire Alarm Code:

- (1) Auxiliary fire alarm system
- (2) Central station fire alarm system
- (3) Proprietary supervision station fire alarm system
- (4) Remote supervising station fire alarm system

Substantiation: Sections 11.3.1, 12.3.1, and 13.3.1 contain requirements for the monitoring of fire alarm systems once certain thresholds are crossed. However, there is currently no requirement for the monitoring of a fire sprinkler system contained in NFPA 150. If fire alarm systems are to be monitored for transmission of alarms to the fire department, fire sprinkler systems should also be monitored. Monitoring of fire sprinkler systems is consistent with the model building codes and fire prevention codes. The language proposed is consistent with the monitoring language contained in NFPA 101, Life Safety Code Section 9.6.4.2.

150- Log #8
(9.6.1.4 and 9.6.1.5)

Final Action:

Submitter: Brian Diel, M. B. Sturgis, Inc.

Recommendation: Add new text as follows:

9.6.1.4 Any gas connection of an appliance to the building piping shall be made with a device listed under Z21.90 / CSA 6.24. This device shall be unaffected by constant exposure to ammonia. The device shall be constructed of nickel plated brass and or stainless steel.

9.6.1.5 Any listed flexible gas connector used in animal housing facilities shall have a maximum working temperature of no less than 200°F (93.3°C). The flexible gas connector and fittings shall be unaffected by constant exposure to ammonia. The end fittings shall be constructed of nickel plated brass and or stainless steel.

Substantiation: M.B. Sturgis, Inc. (Sturgis) manufacturers LP gas hoses assemblies and LP quick disconnect device that transfers the fuel to gas fired appliances that heat animal housing facilities.

Sturgis has been supplying product to tis industry for over 20 years.

Since that time we have had numerous product issues with our brass fittings cracking as well as our competitors as a result of the high ammonia content in this environment. For information: ammonia causes dezincification of the brass alloy causing it to weaken. Example: The fittings crack causing propane to leak, the propane leak naturally sinks into the animal waist and any spark has caused explosions.

Sturgis also been involved in litigation resulting from the plastic hose assembly melting from heat exposure coming from the heat burning appliances. Once the hose starts to melt it will not stop until reaching the ball valve at the piping system. The hose as well has the ball valve acts as a torch once it catches on fire.

Both problems listed above have resulted in property loss and the death of the animals living in these facilities.

We have informed our customers of this issue but do to the fact that there are no requirements for this specific application our customers are unwilling to pay any additional costs for the proper safeguards for this application.

Testing currently underway has shown the life expectancy of a brass fitting with no plating, 6 feet from animal's waist will last no longer than 4 months. The same product nickel plated has shown no dezincification. The test has been on going for over 12 months.

If this proposal is allowed to go through this committee will be making a immediate safety impact for Animal Housing Facilities.

Pictures of animal housing fires are available upon request.

150- Log #14
(9.8)

Final Action:

Submitter: Joe Scibetta, BuildingReports

Recommendation: Revise text to read as follows:

9.8 Special Requirements for ~~Category A Animals~~

9.8.1 Sprinkler Systems. Animal housing facilities with Category A animals or Category B animals shall be sprinklered throughout in accordance with Section 9.2.1

9.8.2 Smoke Control Systems. Animal housing facilities with Category A animals or Category B animals shall have a smoke control system unless modified as approved by the AHJ.

Substantiation: In 2009, horse stable fires in Chesapeake City, Maryland and Lebanon, Ohio resulted in a combined death toll of two humans and fifty horses and a property loss value in the millions of dollars. Those tragic losses reveal that, 30 years after NFPA 150 was first published, animal housing fire disasters remain a very real threat to both animals and the humans who care for them. One problem that currently needs to be addressed in NFPA 150 in order to further mitigate loss of life and property is that sprinkler and smoke control system requirements are limited to Category A animals only. While it is true that Category B animals have more mobility than Category A animals and do not pose the same risk potential to rescuers, and, as such, can more easily be moved to a safer location, Category B animals are still helpless in the event of a fire. It should not be assumed that Category B animals are attended to constantly and, therefore, do not need the added protection of sprinkler and smoke control systems. In both cases cited above, the fires ignited at an hour of the day when no humans were on the premises to facilitate animal rescue. According to 4.1.3.1.1.(2), one of the Safety-from-Fire Goals of NFPA 150 is to "provide an environment for animal occupants inside or adjacent to a structure that is reasonably safe from fire" (italics added). And one of the objectives of the standard, according to 4.1.3.1.2.1, is that facilities be "designed and constructed to protect human and animal occupants not intimate with the initial fire development... ". The goals and objectives in Section 4 do not exclude either animal category and yet limiting sprinkler and smoke control systems to Category A animals does, in fact, exclude Category B animals from being fully embraced by those same goals and objectives. Extending the requirement for sprinkler systems and smoke control systems to Category B animals not only provides a "reasonably safe" environment, but would both address the standard's goals and objectives and incorporate both animal categories more fully. An environment for Category B animals that can potentially expose them to death-dealing smoke and flame in the absence of sprinkler and smoke control systems, cannot be deemed reasonably safe. The fire that broke out at Plainridge Racetrack in Massachusetts on May 9, 2010 is proof positive of the value of a sprinkler system. All 40 horses intimate with the fire were saved because sprinklers not only activated but the sprinkler system initiated an alarm as well. According to media reports, the fire at Plainridge had the potential to put at risk 200 horses and, fortunately, the sprinkler system had been installed even though it was not required. By requiring sprinkler and smoke control systems in housing for both animal categories, animals and the humans on whom they depend stand a greater chance of rescue from fire and, as a result, NFPA 150 will more closely adhere to the fundamental principles on which it is based, principles which apply to all animal occupants: "Animals are sentient beings with a value greater than that of simple property" and "lack the ability of self-preservation when housed in buildings or other structures" (A.1.1.1)

150- Log #10
(11.3.1.1)

Final Action:

Submitter: Ajay Gulati, Smithsonian - National Zoological Park

Recommendation: New text to read as follows:

Where fire alarm graphic annunciator panels are provided, they shall identify animal areas within the building.

Substantiation: Unless the facility is manned/monitored 24 hours and an escort is present, responding personnel to alarm conditions may not be aware of the animal areas. The purpose of highlighting the animal areas is to assist arriving responders in identifying animal locations, which could pose harm to the responders.

150- Log #15
(11.3.7)

Final Action:

Submitter: Joe Scibetta, BuildingReports

Recommendation: Revise text to read as follows:

11.3.7 Special Requirements for ~~Category A Animals~~. Class 1 animal housing facilities with Category A animals or Category B animals shall be in accordance with Section 9.8.

Substantiation: In keeping with the proposed changes to Section 9 Paragraph 8, special requirements for Class 1 Animal Housing Facilities incorporate both animal categories.

150- Log #16
(12.3.7)

Final Action:

Submitter: Joe Scibetta, BuildingReports

Recommendation: Revise text to read as follows:

12.3.7 Special Requirements for ~~Category A Animals~~. Class 2 animal housing facilities with Category A animals or Category B animals shall be in accordance with Section 9.8.

Substantiation: In keeping with the proposed changes to Section 9 Paragraph 8, special requirements for Class 2 Animal Housing Facilities should incorporate both animal categories.

150- Log #17
(13.3.7)

Final Action:

Submitter: Joe Scibetta, BuildingReports

Recommendation: 3.3.7 Special Requirements for ~~Category A Animals~~. Class 3 animal housing facilities with Category A animals or Category B animals shall be in accordance with Section 9.8.

Substantiation: In keeping with the proposed changes to Section 9 Paragraph 8, special requirements for Class 3 Animal Housing Facilities should incorporate both animal categories.

150- Log #11
(A.9.8.2.1)

Final Action:

Submitter: Ajay Gulati, Smithsonian - National Zoological Park

Recommendation: New text to read as follows:

Most animals require shelter in place, therefore a smoke control system of some type is required. Data such as the maximum and minimum exposure temperatures, sensitivity to sudden changes in temperature, maximum carbon monoxide concentrations, and the acceptable smoke layer height above the finished floor during a fire condition is not available for many animals. Data can be determined through interview(s) with the person(s) responsible for the animals to determine the abovementioned data for design of an accurate smoke control system.

Substantiation: In the smoke modeling studies of several buildings at the U.S. National Zoological Park, it was determined that insufficient data exists to sufficiently determine the preservation needs of many animal species (e.g. Red Pandas, Pandas, Elephants, reptiles, small animals, etc). The reference materials listed in the section only address human tenability levels; therefore, animal tenability level information was determined through interviews with the animal curators and keepers of that building.

150- Log #12
(A.11.3.1.1)

Final Action:

Submitter: Ajay Gulati, Smithsonian - National Zoological Park

Recommendation: New text to read as follows:

Consideration should be given to animal reaction such as undue stress caused by the audible sounds or flashing strobes. Where acceptable to AHJ, an acknowledge station that the keeper can press to disengage the notification appliances only the animal area zone could be incorporated into the design. After the notification appliances are deactivated, another means such as a red beacon could be used as an alternative notification method.

Substantiation: In the design and installation of the fire detection and alarm systems at the National Zoo, the animal keepers were concerned about undue stress and behavior that a fire alarm notification appliance may cause the animals (e.g. aggressive, harmful to itself, etc.). In order to alleviate the potential stress to the animals, the fire alarm system has an acknowledge station that when depressed deactivates the strobes/speakers and activates a red beacon in the animal area zone. Public areas still have activated notification appliances that are not affected. The red beacon, which is not stressful to the animals, alerts the keepers that an alarm condition still exists and they should evacuate.

150- Log #4
(Chapter X (New))

Final Action:

Submitter: Eddie Phillips, Southern Regional Fire Code Development Committee

Recommendation: Extract Chapter 5 from NFPA 1, *Fire Code* and insert it in Chapter 5 of NFPA 150.

Substantiation: NFPA 150 has reserved Chapter 5 for a Performance-Based Design Option. A review of NFPA 1 Chapter 5 appears to provide excellent base for inclusion in NFPA 150 to fill the need in the reserved Chapter 5.