

## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Monday, April 21, 2014 1:25 PM  
**To:** Averill, Jason D. Mr.  
**Subject:** FW: NFPA 72 adoptions

Per our earlier conversation, I have the code implementation study ongoing which has some language in it about adoption and remembered that there is a string of e-mails (related to my review of the Joplin Report) concerning if/how NFPA 72 is adopted at the state level.

I hope this helps!

Nancy McNabb  
Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** McNabb, Nancy  
**Sent:** Friday, August 30, 2013 12:27 PM  
**To:** Donald P. Bliss ([dbliss@nfpa.org](mailto:dbliss@nfpa.org))  
**Subject:** NFPA 72 adoptions

Hi Don,

We are working on our final draft of the Joplin Report and a question has come up from one of our NCST reviewers about NFPA 72.

I know it is a code (since 2002) but doubt if NFPA tracks adoptions. My guess is that most states adopt it through the fire code adoption, but I thought perhaps DOD and some university campuses may adopt it voluntarily because of the chapter on mass notifications (this chapter is the issue). Are you aware of any additional information (e.g. state or local adoptions, etc.) that we should be aware of in this regard? Please let me know if you know or can point me to someone who might – thanks!

I hope you are having a good long weekend!

Nancy McNabb, AIA  
Manager  
Building and Fire Codes and Standards  
Engineering Laboratory  
National Institute of Standards and Technology  
100 Bureau Drive MS8600  
Gaithersburg, MD 20899  
301 975 3777

## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Thursday, September 05, 2013 4:40 PM  
**To:** Bliss, Donald  
**Cc:** Dunn, Barbara  
**Subject:** RE: NFPA 72 adoptions

Hi Don,  
Sure - I could use an update on that as well.  
I thought that most states would adopt NFPA72 through the Fire Code but was surprised that there are a lot more direct adoptions than I figured.  
This is helpful – thanks!

Nancy McNabb  
Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** Bliss, Donald [<mailto:DBliss@nfpa.org>]  
**Sent:** Thursday, September 05, 2013 4:34 PM  
**To:** McNabb, Nancy  
**Cc:** Dunn, Barbara  
**Subject:** Re: NFPA 72 adoptions

Hi Nancy,

And as you know, any jurisdiction that has adopted NFPA 1 will have adopted NFPA 72 for systems that are required by NFPA 1. Let me know if you need the list of states that have adopted NFPA 1.

Don

Donald P. Bliss  
Vice President, Field Operations  
National Fire Protection Association  
1 Batterymarch Park  
Quincy MA 02169-7471  
+1 (617) 984-7260  
mobile: +1 (603) 677-2480  
[dbliss@nfpa.org](mailto:dbliss@nfpa.org)



Check out NFPA on social media... [www.nfpa.org/socialmedia](http://www.nfpa.org/socialmedia)

---

**From:** <Dunn>, Barbara <[bdunn@NFPA.org](mailto:bdunn@NFPA.org)>  
**Date:** Thursday, September 5, 2013 12:07 PM  
**To:** Don Bliss <[dbliss@nfpa.org](mailto:dbliss@nfpa.org)>, "McNabb, Nancy" <[nancy.mcnabb@nist.gov](mailto:nancy.mcnabb@nist.gov)>  
**Subject:** RE: NFPA 72 adoptions

Hi Nancy! Hope all is well. Do you have a (b) (6) It's a big year for us...a (b) (6)  
(b) (6) I don't have information on local adoptions for any of our codes- just state level. These states have directly adopted NFPA 72:

Alaska  
Alabama  
Colorado  
Connecticut  
Delaware  
Florida  
Illinois  
Louisiana  
Maine  
Nebraska  
Rhode Island  
Texas  
Vermont  
West Virginia

These federal agencies have referenced NFPA 72:

ATF  
DOJ  
EPA  
OSHA

Take good care. Let me know if you have any questions,

**Barbara Dunn-Field Operations-617.984.7285**

NFPA CODES & STANDARDS  
CAN BE VIEWED AT NO COST  
[www.nfpa.org/freeaccess](http://www.nfpa.org/freeaccess) 

---

**From:** Bliss, Donald  
**Sent:** Wednesday, September 04, 2013 6:35 AM  
**To:** Dunn, Barbara  
**Subject:** FW: NFPA 72 adoptions

Can we pull any of this data off of the your database?

Donald P. Bliss  
Vice President, Field Operations  
National Fire Protection Association  
1 Batterymarch Park

Quincy MA 02169-7471  
+1 (617) 984-7260  
mobile: +1 (603) 677-2480  
[dbliss@nfpa.org](mailto:dbliss@nfpa.org)  
[www.nfpa.org](http://www.nfpa.org)

---

**From:** <McNabb>, Nancy <[nancy.mcnabb@nist.gov](mailto:nancy.mcnabb@nist.gov)>  
**Date:** Friday, August 30, 2013 12:26 PM  
**To:** "Donald P. Bliss" <[dbliss@nfpa.org](mailto:dbliss@nfpa.org)>  
**Subject:** NFPA 72 adoptions

Hi Don,

We are working on our final draft of the Joplin Report and a question has come up from one of our NCST reviewers about NFPA 72.

I know it is a code (since 2002) but doubt if NFPA tracks adoptions. My guess is that most states adopt it through the fire code adoption, but I thought perhaps DOD and some university campuses may adopt it voluntarily because of the chapter on mass notifications (this chapter is the issue). Are you aware of any additional information (e.g. state or local adoptions, etc.) that we should be aware of in this regard? Please let me know if you know or can point me to someone who might – thanks!

I hope you are having a good long weekend!

Nancy McNabb, AIA  
Manager  
Building and Fire Codes and Standards  
Engineering Laboratory  
National Institute of Standards and Technology  
100 Bureau Drive MS8600  
Gaithersburg, MD 20899  
301 975 3777

## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Thursday, September 05, 2013 12:24 PM  
**To:** Kuligowski, Erica D.; Levitan, Marc (marc.levitan@nist.gov); Letvin, Eric; Phan, Long T. Dr.; Lombardo, Franklin T  
**Subject:** FW: NFPA 72 adoptions

FYI

See the direct adoptions of NFPA 72 listed below.

It was an air force guy who pushed for the mass notification annex then chapter – for use on their bases. That does not show up below but this is enough...

Nancy McNabb  
Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** Dunn, Barbara [<mailto:bdunn@NFPA.org>]  
**Sent:** Thursday, September 05, 2013 12:07 PM  
**To:** Bliss, Donald; McNabb, Nancy  
**Subject:** RE: NFPA 72 adoptions

Hi Nancy! Hope all is well. Do you have a (b) (6) It's a big year for us..(b) (6)  
(b) (6) I don't have information on local adoptions for any of our codes- just state level. These states have directly adopted NFPA 72:

Alaska  
Alabama  
Colorado  
Connecticut  
Delaware  
Florida  
Illinois  
Louisiana  
Maine  
Nebraska  
Rhode Island  
Texas  
Vermont  
West Virginia

These federal agencies have referenced NFPA 72:

ATF  
DOJ  
EPA  
OSHA

Take good care. Let me know if you have any questions,

**Barbara Dunn-Field Operations-617.984.7285**



---

**From:** Bliss, Donald  
**Sent:** Wednesday, September 04, 2013 6:35 AM  
**To:** Dunn, Barbara  
**Subject:** FW: NFPA 72 adoptions

Can we pull any of this data off of the your database?

Donald P. Bliss  
Vice President, Field Operations  
National Fire Protection Association  
1 Batterymarch Park  
Quincy MA 02169-7471  
+1 (617) 984-7260  
mobile: +1 (603) 677-2480  
[dbliss@nfpa.org](mailto:dbliss@nfpa.org)  
[www.nfpa.org](http://www.nfpa.org)

---

**From:** <McNabb>, Nancy <[nancy.mcnabb@nist.gov](mailto:nancy.mcnabb@nist.gov)>  
**Date:** Friday, August 30, 2013 12:26 PM  
**To:** "Donald P. Bliss" <[dbliss@nfpa.org](mailto:dbliss@nfpa.org)>  
**Subject:** NFPA 72 adoptions

Hi Don,

We are working on our final draft of the Joplin Report and a question has come up from one of our NCST reviewers about NFPA 72. I know it is a code (since 2002) but doubt if NFPA tracks adoptions. My guess is that most states adopt it through the fire code adoption, but I thought perhaps DOD and some university campuses may adopt it voluntarily because of the chapter on mass notifications (this chapter is the issue). Are you aware of any additional information (e.g. state or local adoptions, etc.) that we should be aware of in this regard? Please let me know if you know or can point me to someone who might – thanks!

I hope you are having a good long weekend!

Nancy McNabb, AIA  
Manager  
Building and Fire Codes and Standards  
Engineering Laboratory  
National Institute of Standards and Technology  
100 Bureau Drive MS8600  
Gaithersburg, MD 20899

## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Thursday, September 05, 2013 12:18 PM  
**To:** Dunn, Barbara  
**Subject:** RE: NFPA 72 adoptions

Thanks Barbara – this is great!

Yes, my (b) (6)  
(b) (6)

I am way behind on my final review of the report so I will get back to that – this is very helpful!  
Best,

Nancy McNabb  
Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** Dunn, Barbara [<mailto:bdunn@NFPA.org>]  
**Sent:** Thursday, September 05, 2013 12:07 PM  
**To:** Bliss, Donald; McNabb, Nancy  
**Subject:** RE: NFPA 72 adoptions

Hi Nancy! Hope all is well. Do you have a (b) (6) It's a big year for us.. (b) (6)  
(b) (6) I don't have information on local adoptions for any of our codes- just state level. These states have directly adopted NFPA 72:

Alaska  
Alabama  
Colorado  
Connecticut  
Delaware  
Florida  
Illinois  
Louisiana  
Maine  
Nebraska  
Rhode Island  
Texas  
Vermont  
West Virginia

These federal agencies have referenced NFPA 72:

ATF  
DOJ  
EPA

OSHA

Take good care. Let me know if you have any questions,

Barbara Dunn-Field Operations-617.984.7285



---

**From:** Bliss, Donald  
**Sent:** Wednesday, September 04, 2013 6:35 AM  
**To:** Dunn, Barbara  
**Subject:** FW: NFPA 72 adoptions

Can we pull any of this data off of the your database?

Donald P. Bliss  
Vice President, Field Operations  
National Fire Protection Association  
1 Batterymarch Park  
Quincy MA 02169-7471  
+1 (617) 984-7260  
mobile: +1 (603) 677-2480  
[dbliss@nfpa.org](mailto:dbliss@nfpa.org)  
[www.nfpa.org](http://www.nfpa.org)

---

**From:** <McNabb>, Nancy <[nancy.mcnabb@nist.gov](mailto:nancy.mcnabb@nist.gov)>  
**Date:** Friday, August 30, 2013 12:26 PM  
**To:** "Donald P. Bliss" <[dbliss@nfpa.org](mailto:dbliss@nfpa.org)>  
**Subject:** NFPA 72 adoptions

Hi Don,

We are working on our final draft of the Joplin Report and a question has come up from one of our NCST reviewers about NFPA 72.

I know it is a code (since 2002) but doubt if NFPA tracks adoptions. My guess is that most states adopt it through the fire code adoption, but I thought perhaps DOD and some university campuses may adopt it voluntarily because of the chapter on mass notifications (this chapter is the issue). Are you aware of any additional information (e.g. state or local adoptions, etc.) that we should be aware of in this regard? Please let me know if you know or can point me to someone who might – thanks!

I hope you are having a good long weekend!

Nancy McNabb, AIA  
Manager



## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Friday, August 30, 2013 1:16 PM  
**To:** Bliss, Donald  
**Subject:** RE: NFPA 72 adoptions

Thanks Don – I will take anything I can get – we want to get the report right.  
It is hot and humid in DC but it feels sort of like Houston in May so I will take it:-D

Nancy McNabb  
Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** Bliss, Donald [<mailto:DBliss@nfpa.org>]  
**Sent:** Friday, August 30, 2013 1:13 PM  
**To:** McNabb, Nancy  
**Subject:** Re: NFPA 72 adoptions

Hi Nancy,

We are tracking quite a few of our adoptions now, so I'll see what we have.

I can't believe the summer is over! Where did it go?

I hope you have a great weekend as well.

Don

Donald P. Bliss  
Vice President, Field Operations  
National Fire Protection Association  
1 Batterymarch Park  
Quincy, MA 02169-7471  
O +1-617-984-7260  
M +1-603-677-2480  
[dbliss@nfpa.org](mailto:dbliss@nfpa.org)

On Aug 30, 2013, at 12:27 PM, "McNabb, Nancy" <[nancy.mcnabb@nist.gov](mailto:nancy.mcnabb@nist.gov)> wrote:

Hi Don,

We are working on our final draft of the Joplin Report and a question has come up from one of our NCST reviewers about NFPA 72.

I know it is a code (since 2002) but doubt if NFPA tracks adoptions. My guess is that most states adopt it through the fire code adoption, but I thought perhaps DOD and some university campuses may adopt it voluntarily because of the chapter on mass notifications (this chapter is the issue). Are you aware of any additional information (e.g. state or local adoptions, etc.) that

we should be aware of in this regard? Please let me know if you know or can point me to someone who might – thanks!

I hope you are having a good long weekend!

Nancy McNabb, AIA  
Manager  
Building and Fire Codes and Standards  
Engineering Laboratory  
National Institute of Standards and Technology  
100 Bureau Drive MS8600  
Gaithersburg, MD 20899  
301 975 3777

## **McNabb, Nancy**

---

**From:** McNabb, Nancy  
**Sent:** Friday, August 30, 2013 12:27 PM  
**To:** Donald P. Bliss (dbliss@nfpa.org)  
**Subject:** NFPA 72 adoptions

Hi Don,

We are working on our final draft of the Joplin Report and a question has come up from one of our NCST reviewers about NFPA 72.

I know it is a code (since 2002) but doubt if NFPA tracks adoptions. My guess is that most states adopt it through the fire code adoption, but I thought perhaps DOD and some university campuses may adopt it voluntarily because of the chapter on mass notifications (this chapter is the issue). Are you aware of any additional information (e.g. state or local adoptions, etc.) that we should be aware of in this regard? Please let me know if you know or can point me to someone who might – thanks!

I hope you are having a good long weekend!

Nancy McNabb, AIA  
Manager  
Building and Fire Codes and Standards  
Engineering Laboratory  
National Institute of Standards and Technology  
100 Bureau Drive MS8600  
Gaithersburg, MD 20899  
301 975 3777

## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Wednesday, June 19, 2013 10:43 AM  
**To:** Letvin, Eric; Cauffman, Stephen A.; Levitan, Marc  
**Subject:** Re: Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013

Hi Eric,

I am traveling and have not had time to read all of the chain below but here is my view:

We do testify at hearings but only if we have the science to back up our statements.

In the case of the FEMA code change proposals, the Joplin report was not finished and there was a reluctance to support the conclusions absent our recommendations.

As I understand it, there have been issues where we advocated changes to the code and the lagging science did not support our proposal.

We do allow others to testify for us as well, especially if they have a political advantage in convincing and/or a more compelling reason to advocate for the change, e.g. ICC code changes to reference or update an ASCE or other reference standard.

I don't think it is our place to advocate for a municipality's adoption of updated codes UNLESS the updated edition contains specific language that addresses our prior recommendations.

I hope this helps – I am sure others have more institutional knowledge about this than me!

Nancy

---

**From:** <Letvin>, Eric <[eric.letvin@nist.gov](mailto:eric.letvin@nist.gov)>  
**Date:** Wednesday, June 19, 2013 8:55 AM  
**To:** "Cauffman, Stephen A." <[stephen.cauffman@nist.gov](mailto:stephen.cauffman@nist.gov)>, Nancy McNabb <[nancy.mcnabb@nist.gov](mailto:nancy.mcnabb@nist.gov)>, "Levitan, Marc" <[marc.levitan@nist.gov](mailto:marc.levitan@nist.gov)>  
**Subject:** FW: Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013

I'm having some difficulty seeing where the line is here. Remember the discussion we had about a year ago when FEMA, actually URS asked us to support their code change proposals related to tornado shelters resulting from Tuscaloosa and Joplin? (see attached).

One of the reasons we didn't support was because the Joplin investigation was ongoing and we didn't have recommendations developed yet. However, we made a recommendation for community shelters previously in our 1999 Oklahoma City Tornado report "The extent of the damage in Oklahoma City to homes, schools, commercial, and industrial buildings highlights the need for protected safe spaces. In homes, small underground or in-home shelters can provide the necessary safe haven. Schools and other public buildings need large shelters or other heavily reinforced areas that will remain intact even in the event of a powerful tornado."

I thought the second reason was that NIST typically doesn't testify directly at these hearings, that we have NIBS, ASCE or others do that for us. What am I missing?

Eric Letvin, PE, Esq., CFM  
Director, Disaster and Failure Studies Program  
Engineering Laboratory  
National Institute of Standards and Technology  
100 Bureau Drive, Stop 8611  
Gaithersburg, MD 20899-8611  
Phone: (301)975-5412  
Cell: (240)780-6837  
E-mail: [eric.letvin@nist.gov](mailto:eric.letvin@nist.gov)  
<http://www.nist.gov/el/disasterstudies/index.cfm>

---

**From:** Shyam-Sunder, Sivaraj  
**Sent:** Tuesday, June 18, 2013 4:36 PM  
**To:** Averill, Jason D. Mr.  
**Cc:** Harary, Howard H. Dr.; Dohne, A Kirk; Glick, Millie; Hamins, Anthony; Cauffman, Stephen A.; Sadek, Fahim H. Dr.; Letvin, Eric  
**Subject:** RE: Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013

Sounds good Jason. I look forward to reviewing the draft.... Shyam

---

**From:** Averill, Jason D. Mr.  
**Sent:** Tuesday, June 18, 2013 4:32 PM  
**To:** Shyam-Sunder, Sivaraj  
**Subject:** RE: Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013

Shyam,

I followed up with James today and we discussed the New York City adoption process and the specifics for this hearing. NYC is adopting a modified version of the 2009 IBC. They have been working on this for more than two years using a consensus process that engages all stakeholders. If any stakeholder issues a veto to a proposed rule, it goes to arbitration. Amazingly, out of the entire IBC, only 10 provisions went to arbitration. In other words, most of the NIST recommendations that were accepted in the national model code hearings will be reflected in the NYC Building Code (pending passage of the bill by the City Council, of course). Five of the ten issues were directly resolved during the arbitration process. Of the remaining five, two involved our recommendations: the evacuation elevator / additional stair provision and fire service access elevators.

After unsuccessfully reaching consensus, the arbitrator (NYC Dept of Buildings) rules and the code moves forward to the council. The ruling of the arbitrator on the fire service access elevators was to reduce the number of elevators to one, allow a lobby enclosure exception for very small footprint (<3000 sf) residential buildings, allow a protected hallway in lieu of the enclosed elevator lobby, and eliminate the protected corridor for access to the stairs from the fire service elevators (a change supported by FDNY). Regarding the Occupant Evacuation Elevator / Additional Stairwell provision, the ruling was to allow a smoke partition rather than fire rated walls for access between the elevator lobby and the stairwell and either:

1. Additional Stair, or
2. Occupant evacuation elevators, or
3. One occupant evac elevator per elevator bank plus all stairs are 66 inches wide.

Some of the basis for the last provision (the hybrid approach) was based on a recent NIST paper on this topic (attached).

Procedurally, we can submit written comments (of unlimited length) and will have two-and-one-half minutes to testify before the council. James indicated that he will try and get us put towards the front of the agenda. I will work to have a draft set of comments and the testimony to you by Friday morning. I would have them faster, but I'm still waiting for James to send their summary of the changes.

If helpful, I'm happy to sit down and talk through this between now and next Monday.

Thanks,

Jason

Jason D. Averill, Analyst  
Program Coordination Office  
Office of the Under Secretary for Standards & Technology, and NIST Director  
National Institute of Standards and Technology (NIST)  
Email: [jason.averill@nist.gov](mailto:jason.averill@nist.gov)  
Phone: (301) 975-2661

---

**From:** Shyam-Sunder, Sivaraj  
**Sent:** Tuesday, June 18, 2013 8:57 AM  
**To:** Averill, Jason D. Mr.; Sadek, Fahim H. Dr.; Wixon, Henry N.  
**Cc:** Cauffman, Stephen A.; Harary, Howard H. Dr.; Dohne, A Kirk; Glick, Millie; Lieberman, Melissa J.; Kimball, Kevin A.; Porter, Gail; Newman, Michael E.; Schufreider, James R.; Acierto, Linda D.  
**Subject:** RE: Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013

Henry,

We received this request to provide testimony on our WTC recommendations and associated code changes to the New York City Council. I previously testified in front of the Council on our WTC 7 investigation in September 2006 (see attached request and testimony). I believe we should provide testimony (assuming Jason can rearrange his schedule). Our testimony should focus on the WTC recommendations, the changes consistent with our recommendations adopted in the national model codes -- IBC (2009) and (2012), and the technical rationale/justification for those changes. We can certainly state that NIST supports adoption of the changes in the IBC by states and local jurisdictions without getting into the specifics of NYC codes. I want to make sure you are aware of this request and our planned response and to get your perspectives on any legal issues that we need to be mindful about. Once a testimony is drafted we will run it by your office.

Shyam

---

**From:** Shyam-Sunder, Sivaraj  
**Sent:** Tuesday, June 18, 2013 5:18 AM  
**To:** Averill, Jason D. Mr.; Sadek, Fahim H. Dr.  
**Cc:** Cauffman, Stephen A.; Harary, Howard H. Dr.; Dohne, A Kirk; Glick, Millie  
**Subject:** Re: Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013

I testified in front of the NYC council some years ago on a fire related topic. Maybe post WTC 7. So there is precedent. Also, this is a logical part of communicating our recommendations much as Nelson went to Brazil. NYC was a partner in our investigation. Without that partnership we could not have been effective. We are now asked to reciprocate. And we should. Shyam

---

**From:** Averill, Jason D. Mr.  
**Sent:** Monday, June 17, 2013 10:23 PM  
**To:** Shyam-Sunder, Sivaraj; Sadek, Fahim H. Dr.  
**Cc:** Cauffman, Stephen A.; Harary, Howard H. Dr.; Dohne, A Kirk; Glick, Millie  
**Subject:** Re: Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013

Shyam,

I should be able to; I will verify for certain tomorrow once I check on one previously planned detail.

As you know, I've been responding to James, Charles, and Keith for the past few months, answering a variety of questions about elevators/stairs. It would be nice to be able to see the process all the way through to implementation.

One policy I wanted to verify: unlike the national model code hearings, in the past we have declined invitations to testify during state/local adoptions (in particular about smoke alarm and sprinkler and fire department issues). As I understood, the concern was (a) how to accept some invitations but not others, and (b) concerns about federal involvement in state issues. This NYC invitation may be different due to the WTC investigation: we have a statutory requirement to advocate for our NCST recommendations, unlike our STRS research. But I want to make sure I understand the policy.

Thanks,  
Jason

---

**From:** Shyam-Sunder, Sivaraj  
**Sent:** Monday, June 17, 2013 05:24 PM  
**To:** Averill, Jason D. Mr.; Sadek, Fahim H. Dr.  
**Cc:** Cauffman, Stephen A.; Harary, Howard H. Dr.; Dohne, A Kirk; Glick, Millie  
**Subject:** FW: Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013

Jason and Fahim,

These are important changes to the NYC Building Code. We can certainly speak to the value of and rationale for these changes in the context of our WTC recommendations. Is it possible for you to participate? This is a one-day trip....

Shyam

---

**From:** James Colgate (Buildings) [<mailto:jpcolgate@buildings.nyc.gov>]  
**Sent:** Monday, June 17, 2013 3:42 PM  
**To:** Averill, Jason D. Mr.; Shyam-Sunder, Sivaraj  
**Cc:** Helen Gitelson (Buildings); Charles Shelhamer (Buildings); Keith Wen (Buildings)  
**Subject:** FW: Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013  
**Importance:** High

Hi Shyam and Jason,

We just submitted out bill to the council to bring the NYC code up to date with the 2009 IBC (with NYC amendments). Does NIST ever testify in support of local adoptions of NIST recommendations? We have the FSAE, Additional Stair, Bond strength of spray fireproofing, IA construction class, etc. See below for more details on the hearings.

Thanks,  
James

---

James P. Colgate

Assistant Commissioner for Technical Affairs & Code Development  
New York City Department of Buildings  
280 Broadway, 7th Floor  
New York, NY 10007  
Phone: +01.212.393.2011  
Fax: +01.212.566.3796

Please note that my phone number has **changed** to: 212.393.2011  
Please note that my email address has **changed** to: [jcolgate@buildings.nyc.gov](mailto:jcolgate@buildings.nyc.gov)

---

**From:** Dawn Davidson (Buildings)  
**Sent:** Monday, June 17, 2013 10:01 AM  
**Subject:** Public Hearing on Code revision Bill, Intro 1056, at 1 pm on 6/25/2013  
**Importance:** High

Dear Committee Members:

We want to keep you posted on the progress of the code: The 3-volume bill was delivered to the council on Friday, June 9<sup>th</sup>. It was introduced as **Intro 1056** at the Stated Meeting of the City Council on Tuesday June 12<sup>th</sup>, and was referred to the Committee on Housing and Buildings.

The Housing & Buildings Committee will hold a **public hearing on Tuesday June 25, 2013 at 1pm** in the 16th Floor Committee Room at 250 Broadway. We hope you will attend and testify in support of the code **revisions** at the hearing. It is one thing for council members to see the many changes on paper, but quite another to hear about them, what they mean, the benefits and the process by which we arrived at them. And most importantly, it is more important that the Council hear from you, the participants, rather than just the Department of Buildings.

If you plan to testify, the Council requests that you bring 30 copies, double-sided, of your written testimony to the hearing. Please be aware that due to increased building security procedures at 250 Broadway, you must bring identification and allot some extra time for entry through the building lobby. If you cannot attend the hearing, you may submit testimony electronically to [gpatino@council.nyc.gov](mailto:gpatino@council.nyc.gov) or by mail to Guillermo Patino, Legislative policy Analyst, NYC Council, Infrastructure Division, 250 Broadway, New York, NY 10007. If you plan to testify or submit testimony, we would appreciate it if you would also send a copy of your testimony to your committee coordinator.

FYI, Intro 1056 (all 2,461 pages) may be found here:

<http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=1444199&GUID=B5415C20-2F03-4542-956D-7A663E7886B7&Options=ID|Text|&Search=6429>

This proposed legislation is only possible because of your hard work, technical expertise and commitment to the Department's code revision efforts. We would like to thank you again for all you have done, and continue to do, in order to keep the NYC Construction Codes current and up-to-date.

Looking forward to seeing you on the 25<sup>th</sup>.

*Dawn Davidson*

Senior Project Manager  
New York City Department of Buildings



## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Monday, December 10, 2012 4:25 PM  
**To:** Levitan, Marc  
**Subject:** RE: Review of some text for Joplin report  
**Attachments:** Nancy comments Joplin Reccs section 9-1 docx.docx

Hi Marc,

I revised this to update and commented as well.

I do not have updated NFPA info but can get that if you wish.

The problem is that NFPA counts only adoptions at the state level (some jurisdictions may be exempt) and ICC counts the state if any jurisdiction within adopts the document, so it is a bit of apples and oranges...

See what you think and let me know if you want the NFPA update – I think there will still be some overlap, i.e. more than 50 states total, though!

Nancy McNabb  
Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** Levitan, Marc  
**Sent:** Friday, December 07, 2012 10:33 PM  
**To:** McNabb, Nancy  
**Subject:** Review of some text for Joplin report

Hi Nancy

The attached page of text is from the Recommendations Chapter in the WTC report. We'll be reusing something along these lines in the Joplin report. A few items are a little out of date. Can you review and update the page?

Thanks  
Marc

=====  
Marc L. Levitan  
Lead, National Windstorm Impact Reduction Program R&D

Engineering Laboratory  
National Institute of Standards and Technology  
100 Bureau Drive, Mailstop 8611  
Gaithersburg, MD 20899-8611

phone 301/975-5340  
blackberry 240/361-8482  
cell 225/266-4877  
[marc.levitan@nist.gov](mailto:marc.levitan@nist.gov)

## **Towards measuring efficiency of national standards governance: A complicated and challenging task but meaningful**

*(Draft as of 4pm, 30<sup>th</sup> July 2012)*

Dong Geun Choi (guest researcher, Standards Services, Standards Coordination Office, NIST)

***There are three types of people in the world: 1) those who make things happen, 2) those who watch things happen, and 3) those who ask - what happened? Life is much more fulfilling if you are the first type.*** - (Ivor Royston)<sup>1</sup>

### **1. Harmonizing global landscape since the 1990s**

Since standards may govern the developing, manufacturing, supplying, and operating most of goods and services, those nations who make standards happen, rule makers, may own competitive edge in global competition. To the question of how efficient standards system of a nation can be evaluated by how much a nation influences on the global standards making structure and outcome. Not surprisingly, the efficiency of the US national standards system has been continuously discussed, whether its decentralized and private sector-led standards setting system is the most efficient one or it needs to be changed.

Among many studies, the two most notable publications would be the 1965 US DOC (Department of Commerce) report lead by Dr. LaQue<sup>2</sup> and the 1992 US Congressional OTA (Office of Technology and Assessment)'s report lead by Dr. Garcia in 1992<sup>3</sup>. The two reports share many similar concerns and recommendations for the U.S standards system. This indicates that little changes had been made between 1965 and 1992. Today, twenty years later the OTA report was published, there have been no radical changes in the US standards system. The recent memo<sup>4</sup> of the White House reaffirms the primary strategy of the US government approach; *private-sector lead national standards system and government supplement it.*

**Comment [nam1]:** Dong, I like the opening quote and the way that the opening statement ties to it, but this sentence is less clear, although I think I know what you are trying to say. I suggest that you have someone review this for the grammatical stuff - I will limit these comments to the technical aspects.

<sup>1</sup> Interview with La Jolla Light (<http://www.lajollalight.com/2008/05/28/10-questions-for-ivor-royston>)

<sup>2</sup> La Que, 1965, *Report of the Panel on the Engineering and Commodity Standards of the Commerce Technical Advisory Board*, U.S Department of Commerce. The lead author Dr. Francis L. LaQue (1904-1988) served as the president of ASTM (1959-1960), ANSI (1969-1971), ISO (1971-1973) and also as deputy assistant secretary of the US DoC (1974).

<sup>3</sup> OTA, Office Technology and Assessment, 1992, *Global Standards: Building Blocks for Future*

<sup>4</sup> White House Memo (M-12-08), 2012, Memorandum for the heads of executive departments and agencies on "Principles for Federal Engagement in Standards Activities to Address National Priorities"

After the OTA report was published in 1992, it is truly remarkable how many more critical changes and issues have occurred in standardization scene, namely *global harmonization*. Globally WTO TBT Agreement<sup>5</sup> mandates nations to harmonize national regulations (standards) with relevant international standards since 1995. Since the early 1990s, regional trade agreements (RTAs) have been prevalent<sup>6</sup>, which normally requires that aligning national regulations with international standards. In Europe, Harmonization of national regulations (standards) with European standards, and harmonization of trade laws, Vienna Agreement of ISO-CEN, Dresden Agreement of IEC-CENELEC have been implemented since 1992<sup>7</sup>. In the US, the introduction of National Technology Transfer and Advancement Act (NTTAA) in 1995 and OMB Circular A-119 in 1998<sup>8</sup>, have accelerated the harmonization of federal regulations of the US with privately developed national ~~voluntary~~ consensus standards. These events have brought significantly positive effects on free trade without doubt, by increasing the transparency level and avoiding the creation of unnecessary obstacles to trade.

**Comment [nam2]:** You may want to define the term "voluntary consensus standards" per the NTTA, although I am sure that many know what this means.

However, the overall impact may not be same on every nation because each nation has influenced on and absorbed from international standards differently, albeit the practical and debatable scope of *international standards*. Despite these radical changes have made during the last two decades, there have been little studies to evaluate the performance and outcomes of the national standards system. This situation is problematical because there is no scientific or empirical evidence endorsing whatever key decisions made in the US process of standardization, ~~of the US~~. Paying attention to the recently arising global harmonization movement, the present paper examines the efficiency of the national standards system, with some focus on the US, with the following specific scope of questions:

- How these global harmonization trends have *shifted the paradigm* of international and national standards setting scenes during the last decade;
- How these harmonization movement may have *affected on the competitiveness* of the national economy favorably or unfavorably;

This paper is divided into six sections. The following three sections provide analysis and results; **Section 2** examining the influence change of the US in ISO and IEC; **Section 3** analyzing national standards in different countries about harmonization level with international standards; **Section 4** evaluating national regulations about the usage level of the US domiciled standards that are developed by US-based organizations compared to other international standards. The **Section 5** encompasses summary, conclusions, and limitation of this study.

**Comment [nam3]:** Many of the SDOs that are based in the US, call themselves "international" and some even have "international" in their name. This is difficult to capture without offending...

<sup>5</sup> Full text of TBT Agreement is available at [http://www.wto.org/english/tratop\\_e/tbt\\_e/tbtagr\\_e.htm](http://www.wto.org/english/tratop_e/tbt_e/tbtagr_e.htm)

<sup>6</sup> The WTO RTAs database of total 232 list provides that 22 RTAs went into force in 1958–1989, 53 RTAs in the 1990s, 129 RTAs in the 2000s. ([https://www.wto.org/english/tratop\\_e/region\\_e/region\\_e.htm](https://www.wto.org/english/tratop_e/region_e/region_e.htm), accessed 1 July 2012)

<sup>7</sup> ISO-CEN Vienna Agreement is available at <http://www.iso.org/va>, and IEC-CENELEC Dresden Agreement: [www.iec.ch/about/.../iec\\_cenelec\\_agreement.htm](http://www.iec.ch/about/.../iec_cenelec_agreement.htm) Both signed in 1991, and implemented since 1992

<sup>8</sup> Further information about NTTAA and OMB Circular A-119 can be found at <http://standards.gov>, a website operated by US National Institute of Standards and Technology (NIST)

**2. Any changes in the leadership and influence of ISO and IEC during the last decade?**

This section examines the leadership and influence of nations by measuring contribution level to the international standards organizations. The result can be used to assess the operations performance of the nations in international stage during the last decade. ISO and IEC are selected as two exemplary de jure international organizations, and relevant figures including the number of secretariats, chairs/convenors, and new work item proposals are used to develop the contribution level of each nation.

**Comment [nam4]:** The word "performance" implies that you are measuring the outcome of their participation. I think you are measuring the level of activity of the various countries but I am not sure that this allows more than a general assessment.

<Table 1> provides the top seven nations per based on newly developed contribution index for this study. The numbers of secretariats and chairs(convenors) of nations were collected and transformed into average national share between the obtainable oldest and newest years, 1998 and 2011 for ISO, and 2005 and 2011 for IEC. The US ranked No.1 in both year 1998 and 2011 in the contribution level to ISO, although it lost its contribution share 1.8%, from 20.4% to 18.6%. In 1998, the average share of 20.4% is calculated from 18.2% (135/743) secretariat and 22.7% (446/1967) convenors of ISO. In 2011, the slightly lowered average share of 18.6% is from 16.1% (117/725) secretariats and 21.1 % (509/2,414) convenors of ISO.

<Table 1> Contribution index of top 7 Nations in ISO (1998, 2011) and IEC (2005, 2011)

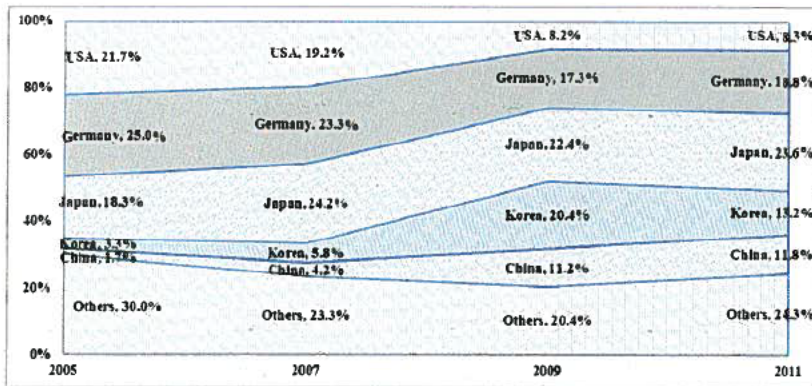
Rank	ISO Secretariats+Convenors				Rank	IEC Secretariats+Chairs			
	1998		2011			Country		Country	
1	USA	20.4%	USA	18.6%	1	Germany	14.6%	Germany	19.3%
2	Germany	18.7%	Germany	16.3%	2	USA	14.5%	USA	15.3%
3	UK	16.3%	UK	12.2%	3	UK	12.9%	UK	11.6%
4	France	10.5%	France	9.1%	4	France	12.5%	France	11.5%
5	Sweden	4.7%	Japan	8.6%	5	Japan	9.3%	Japan	9.5%
6	Japan	4.2%	China	4.3%	6	Italy	8.1%	Italy	7.7%
7	Netherlands	3.4%	Sweden	3.5%	7	Sweden	4.9%	Sweden	3.6%
*	All others	21.7%	All others	27.3%	*	All others	23.3%	All others	21.4%

During the period, Asia has clearly emerged as one of the three major regional players in ISO along with EU and North America. Before 1998, the ISO was mainly led by two regions, Europe and North America (occupying 88.5%), and now it adds Asia. During this period average share of Asia in ISO contribution increased 12.1% (8.2% to 20.3%) while EU drops most 11.4% (65.2% to 53.8%) and North America (USA and Canada) 1.9% (23.3% to 21.4%). The rest of the world shows slightly increase of 1.1%.

**Comment [nam5]:** Does North America refer to the US and Canada? We have different systems...

In the case of IEC, the oldest data obtainable was the year 2005, so the annual activities of IEC during 2005 to 2011 were analyzed. Little changes were observed during the 2005-2011. In 2011, EU constitutes 65.3%, North America 17.8%, Asia 15.3%, and other regions 1.6%. Overall, the current overview of regional leadership distribution of IEC is not quite different from that of ISO. The US ranked No.2 with 14.5% in 2005 after Germany of 14.6%; 15.3% after Germany of 19.3% in 2011.

Since IEC provides additional figures of new proposals for standards per nation, while ISO's data was not obtainable for this study, and further examination is conducted. The analysis shows fairly different from the statistics of the IEC secretariats and chairs. Although there were little changes in the number of secretariats and chairs per nation in IEC during 2005-2011, considerable changes in new proposals for standards were observed. The regional leadership in 2005-2011 in new proposals shows strong emergence of Asia from 23.3% to 50.0%, and stiff decline of North America from 25.0% to 9.7%. As a result, Asia ranked the first with 50.0% (72) followed by EU with 40.3% (58) and North America 9.7% (14). The new proposals from the U.S dropped 21.7% in 2005 to 8.3% in 2011, which is the biggest fall among all nations in the given period as shown in <Figure 2>. This clearly shows increasingly active participation of Asia, but this statistics should not misguide. This should be limitedly interpreted as 'proposal stage' only because many of these proposals may not have gone through the multiple approval procedures for publications. Also, IEC's parallel procedure with CEN/CELEC, or its agreement based collaboration may not be reflected appropriately.



<Figure 2> Changes in new work item proposals in IEC in 2005 – 2011

This section confirms that Europe and North America have led the activities ISO and IEC; and Asia has recently emerged as a major player as well. The overall influence of EU, measure in this study, found to be larger than the sum of North America and Asia. The leadership and influence of the US in ISO and IEC, from secretariatship and chair-ship can be still considered as one of the strongest nations, but also some figures in IEC new work proposals indicate that the overall influence-interest may have decreased. For more accurate conclusions about these limited data are difficult to determine without and balanced results, more statistical data including the proposals, final publications, collaboration with external organizations including those of Europe and the US. This analysis may be a valuable, would be needed in any future study.

**Comment [nam6]:** I would be careful here. New work proposals do not always result in new standards and new standards may not be widely adopted or used... It is more difficult to determine why US activity/interest in these international standards has apparently waned.

### 3. How harmonization with international standards implemented globally?

This section examines the harmonization level of national standards with de jure international standards, ISO and IEC. This section involves analysis of three regions, and a few selected nations.

Europe constitutes 39.4% world merchandise trade volume<sup>9</sup>; and 21.6% of export and 18.2 % of import of the U.S merchandise trade. Total number of European publications by CEN and CENELEC, including all standards and specifications is 21,270, composed by 14,650 CEN standards and 6,620 CENELEC standards at the end of June 2012 (excluding corrigenda and guides). <Table 2><sup>10</sup> shows that, excluding the 68 Guides among publications, about 97.9% (20,824) of the 21,270 European publications are harmonized, identical to or based on, ISO and IEC, and only 2.1% (446) has no relation. The terminology 'based on' is vague and poorly defined. Since another unclearly defined terminology, 'modified (MOD)' national standards from ISO and IEC is considered as harmonized, 'based on' is also considered as 'harmonized', for comparative purpose, with international standards in this study. This is much higher level than two decades ago at both regional and national levels<sup>11</sup>. The implementation rates of the European standards in the 33 full members were as high as over 93% to 100%. Specifically, around two thirds of the 8,892 identical standards are approved parallel by ISO-CEN and IEC-CENELEC. Around 61% of the 4,385 ISO-CEN identical standards are from parallel adoption procedures under ISO-CEN Vienna Agreement, and 84% of the 4,507 identical IEC-CENELEC standards are from parallel approval procedures under IEC-CENELEC Dresden Agreement. This provides firm proof that the European standards and the international standards are absorbed each other both ways. Assumably this channel may add the leadership and influence decline of Europe in ISO and IEC, analyzed in the Section 3.

<Table 2> Harmonization status of CEN with ISO and CENELEC with IEC

Class	A (identical to)	B (based on)	A+B (identical +based)	C (no relation)	A+B+C (sum)
CEN	4,385	10,242	14,627	23	14,650
(with ISO)	29.9%	69.9%	99.8%	0.2%	100.0%
CENELEC	4,507	1,690	6,197	423	6,620
(with IEC)	68.1%	25.5%	93.6%	6.4%	100.0%
Total	8,892	11,932	20,824	446	21,270
	41.8%	56.1%	97.9%	2.1%	100.0%

<sup>9</sup> WTO, 2011 world trade developments (World trade: 14,851 Billion dollars, Europe: 5,844 Billion dollars)

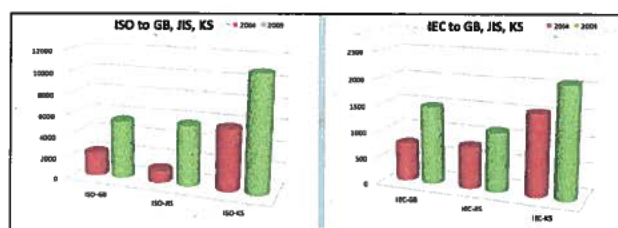
<sup>10</sup> CEN-CENELEC, 2012, CEN-CENELEC Quarterly Statistical Pack for 2012 Quarter2. Available at their common website: <http://www.cencenelec.eu/aboutus/InFigures/Pages/default.aspx>

<sup>11</sup> For example, UK DTI report in 2005 describes this trend very well, as much as 64% of the BSI catalogue was accounted for by purely 'national' standards whereas in 2005 this was less than 26%. In Denmark, today 93.6% of Danish standards are harmonized with international and European standards, statistics obtained from personal communication with Signe Annette Begh and Mogens Andersen of DSF (Danish Standards Foundation).

In Gulf region, GSO (Gulf Cooperation Council Standards Organization)<sup>12</sup> also publishes regional standards, aiming for the harmonization, integration and building of the standardization areas and quality infrastructure in the Member States of six Gulf nations. GSO started its operation in 2004, supplanted the Gulf Standards and Metrology Organization operated in 1984-2003. GSO does have around 5600 standards, and 25% of them are regulatory. Most of the GSO standards are adopted from international standards, 47% from ISO, 13 % from IEC, and 7% from other international organizations<sup>13</sup>. ISO and IEC standards are also widely used in Gulf region as well.

In Asia Pacific region, there is no regional standards-setting organization, but in APEC (Asia-Pacific Economic Cooperation), alignment with international standards is one of the key activities under its Sub-Committee on Standards and Conformance (SCSC). APEC's Individual Action Plan specifies, "Each APEC economies will continue alignment of domestic standards with international standards in the priority areas which the SCSC will identify for alignment in the short to medium term in pursuing this goal." In 2001-2005, Majority of the APEC members implemented those international standards of 8 sectors as national standards in the selected priority areas. In 2006-2011, harmonization with selected 168 IEC standards that covered under the IECCE CB scheme was conducted. The summary results presents that 16 economies completed their harmonization more than 90% in 2010<sup>14</sup>. ISO and IEC standards, at least in the selected priority sectors, have been advantageously adopted or harmonized as the national standards during the last decade in the APEC region.

Harmonization with ISO and IEC standards seem to be inevitable fashion in many Asian nations as well. Specific information is available for China, Japan, and Korea – whose estimated 2011 trade volume ranked the 2<sup>nd</sup>, 4<sup>th</sup>, and 8<sup>th</sup> in the world<sup>15</sup> in order. These three big trading nations are composing 14.9% of export and 20.7% of import of the 2010 U.S merchandise trade<sup>16</sup>. <Figure 3> shows astonishing adoption of ISO and IEC in the five years given; the total national adoption has been almost doubled. These harmonized standards composed around 28% of GB in China, 63% of JIS in Japan, and 55% of KS in Korea as of 2009, and reportedly increasing after 2009.



<Figure 3> ISO and IEC standards adopted by China (GB), Japan (JIS), and Korea (KS) in 2004-2009<sup>17</sup>

<sup>12</sup> Website: <http://www.gso.org.sa/>

<sup>13</sup> A presentation by Dr. Sufyan Al-Irhayim, Director of Specifications & Metrology, GSO in Seoul, Korea on 20 July 2011

<sup>14</sup> A summary report by Japan in the APEC SCSC meeting in Sendai, Japan on 20-21 September 2010

<sup>15</sup> CIA World Factbook 2011 (<https://www.cia.gov/library/publications/the-world-factbook/index.html>)

<sup>16</sup> WTO, 2011 world trade developments (World trade: 14,851 Billion dollars, Europe: 5,844 Billion dollars)

<sup>17</sup> Two Survey reports in 2005 and 2010 conducted by Korean Agency for Technology and Standards (KATS) and Korean Standards Association (KSA)

This yearly changes is not available for other Asian nations. However, it is reported that around 61.2% of 6,313 Malaysia's national standards (MS)<sup>18</sup>, and about 40% of 6,300 Vietnam's national standards (TCVNs) are currently harmonized with international standards.<sup>19</sup>

Canada is the No.1 trading nation of the US, comprising 19.4% of export and 19.5% of import of the 2010 US merchandise trade. In the case of Canada, at the end of Dec 2008, the number of ISO standards adopted in its 3,776 national standards is 1,376, which is about 36.4% (ISO only)<sup>20</sup>. Today it is estimated that around 35% of national standards of Canada are harmonized with ISO and IEC.

In the US the number of adopted ISO and IEC standards was as low as 150 in 1996<sup>21</sup>, and as of May 2012, it increased to 1,576, composing 15.5% of the total of the 10,144<sup>22</sup> ANSI accredited American National Standards (ANS)<sup>23</sup>. This number proves that absorption of ISO and IEC happens in the US as well. The still relatively low formal adoption of ISO and IEC standards in the US seems to be caused by may tell us something about its standards system. ANSI adopts international-ISO and IEC standards only when its accredited US-based SDOs requests. ANSI representative provides the current statistics and also comments, "*Many ISO and IEC standards are used in the marketplace, but without the formal adoption taking place in the US*"

This section delivers strong evidence of harmonization trend around the globe. The ISO and IEC standards have been rapidly and successfully penetrating into national standards in all the analyzed areas of Europe, Gulf, and Asia-Pacific during the last decade. The harmonization rate is highest in Europe, but has rapidly increased in other regions including Asia and North America as well.

#### 4. How much the US-domiciled standards are used globally is complex and challenging to measure

Regrettably, there exist few limited reliable resources how many US-domiciled standards are adopted outside of the US territory both as national standards or regulations, and this makes unworkable to measure how much of these US-domiciled standards can be really considered called 'internationally standards' in practice. As an alternative, this section explores the usage level of US-domiciled standards in regulations from a few prior studies and database. This provides more practical information since the development of voluntary national standards do not necessarily mean the usage of the harmonized international standards, but regulations are a better indicator, do so.

As predicted, many European standards are incorporated in European legislation, EU Directives or regulations. About 19.1% (4,072) CEN and CENELEC standards are cited or intended for citation in their 39 Directives or

**Comment [nam7]:** I think that you need to go through the paper and clarify whether you are drawing conclusions about the US or North America. The US is part of North America, so thist is confusing, at times...

<sup>18</sup> Presentation by Mr. Ridzwan Kasim, Senior Director, Department of Standards Malaysia in December 2011

<sup>19</sup> Presentation by Nguyen Thi Ha and Nguyen Thi Lan Huong of STAMEQ in June 2010

<sup>20</sup> ISO, 2009, ISO Members

<sup>21</sup> Bob Toth, 1996, Putting the US standardization system into Perspective: new insights (pp.169-178, StandardView Vol. 4, No. 4, December/1996)

<sup>22</sup> The statistics and comments are from personal communication with Gary Kushnier and Anne Caldas of ANSI

<sup>23</sup> ANSI accredited standards. Its designation procedure is available at [www.ansi.org](http://www.ansi.org)



regulations in Official Journal of EU (OJEU)<sup>24</sup> as of June 2012. The 4,072 legislated standards are composed by 59.4% (2,420) CEN and 40.6% (1,652) CENELEC standards. Although European legislation does not directly refer to international standards, their high level harmonization with ISO and IEC standards may indicate semi-automatic usage of international standards in the European regulations. It specifies that about 94.2% (3,836) of the 4,072 legislated standards are harmonized, either identical or based on<sup>25</sup>, with international standards. Most of these legislated standards, 92.8% to 100%, are adopted as national standards in the 33 full members of CEN and CENELEC.

The two recent studies in 2010 by the OECD<sup>26</sup> and the OGP<sup>27</sup> suggest that the reality of regulations is very complicated sector by sector, and nation by nation yet. In electrical safety and electromagnetic compatibility (EMC) sectors, the IEC standards are taken as a base in most cases. In the area of natural gas pipelines safety, API, ASME, ASTM standards are widely used. The OECD report commented, "Although EU regional give a privileged position to European standards, national governments in the EU appear to accept other standards more readily than the federal EU authorities, and notably those from ASTM, API, and ASME in the natural gas sector".

The OGP study identified 1,348 standards by 11 nations, excluding three nations without reference information. What is positive to the US standards community, in the OGP study, is that about one third of the references are from the US-domiciled SDOs, including 225 API standards, 35 NFPA standards, 33 ASTM standards, 29 UL standards, 26 ANSI/ASME standards. The regulated standards are dominated by industry standards (44%), followed by national standards (35%), and international standards (21%)<sup>28</sup>. What is not positive to the US, are the fact that there is a significant increase in the reference of international standards and a sharp decrease in reference to purely national standards or industry standards. For example, 22 ASTM standards were referenced in 1996 study but no single ASTM standards were referenced in the 2010 OGP study. Comparison with European regulations in the 1996 and 2010 reveals that reference to US-domiciled standards decrease 36% (43% to 7%) while international and European standards increase 31% (19% to 50%). This is certainly telling that their standards are quickly replaced by international or regional standards, at least in Europe, and the influence of US-domiciled standards seems diminishing during the last decade. However, OGP report pointed out that many API standards were harmonized, identical or modified, with ISO TC 67 standards and CEN TC 69 standards<sup>29</sup>. Such ISO-API-CEN harmonization type of information, existing under the surface, may have partially caused the decreasing usage of US-domiciled standards. Indeed, it is complex and challenging to trace such transpositions among different SDOs unless such data is cleared presented in a collective manner.

**Comment [nam8]:** Could this be because ASTM is now "ASTM International"? They consider themselves to be an international SDO, based in the US.

**Comment [nam9]:** I think it would be helpful to go through the entire paper and identify whether you mean "international" or IS/IEC only. Many US-based SDOs consider themselves to be international. It is my understanding that ISO requires the re-branding of US-based standards before they are accepted for use in the EU. This is the model that you describe for API.

<sup>24</sup> The Official Journal of the European Union can be found at [http://publications.europa.eu/official/index\\_en.htm](http://publications.europa.eu/official/index_en.htm)

<sup>25</sup> It is true that the definition of 'based on' for CEN and CENELEC is ambiguous, but this unclearness is same to the 'MOD (modification)' for ISO and IEC standards which is considered as harmonized.

<sup>26</sup> Fliess, B. et al., 2010, *The Use of International Standards in Technical Regulation*, OECD Trade Policy Working Papers, No. 102, OECD Publishing.

<sup>27</sup> OGP (International Association of Oil & Gas Producers), 2010, *Regulators' use of standards*, OGP Publications

<sup>28</sup> In the OGP report, national adoption of international standards were considered as international standards.

<sup>29</sup> OGP, 2010, *List of ISO/TC67 standards with the adoption in CEN and in API*. Available at <http://info.ogp.org.uk/standards/downloads/GSULW.pdf>

So far no study, at least publically accessible, has conducted a comprehensive survey on how many US-domiciled standards are used or referenced in regulations outside of the US, except some limited sector-specific studies. The only attained cross-sector database was that of ASTM international. The internal ASTM database presents solid proof that ASTM standards are truly 'international standards' in practice. The database reveals that 72 national and 2 regional standards organizations around the world are citing 5,886 ASTM standards by references as the basis of national standards or by adoption. The number of 5,886 ASTM standards cited, excluding multi counts of single standards, can be enlarged to 14,100 standards if multiple counting is allowed for different nations. This globe wide citation is not much surprising, considering the fact that their total 34,602 membership is composed by 150 nations, and around half of their standards are sold outside of the US<sup>30</sup>. It should be clarified that this figure 5,886 is not comprehensive but partial as it was has been collected from annual reports of the 75 MOUs only, and most of the MOUs are signed with developing nations. [With] the given data, ASTM has widened its-usage level and incorporation by proving high quality technical assistance-ship via their MOU programs. However, it is not clear whether comprehensive referencing of ASTM standards has actually grown in the non-MOU nations, industrialized nations.

The US NTTAA and OMB Circular A-119 since the late 1990s have significantly serves to improve the efficiency and transparency of the US regulatory and standards-setting governance, by harmonizing between technical requirements of government sector and private sector SDOs, and also this has induces another positive impact of harmonization among federal regulation authorities. NIST, national institute of standards and technology, coordinates and monitors the implementation of the NTTAA within the US Government, and provides so called the SIBR Database for informational purposes<sup>31</sup>. The SIBR (Standards Incorporated by Reference)<sup>32</sup> contains incorporation of 3,637<sup>33</sup> standards with total 9,486 citations as of June 2012<sup>34</sup>. The most significant findings from the SIBR database is that as high as 93.7% of the referencing is based on US-domiciled standards and regulations while only 6.3% is based on international or foreign organizations; Only 6.2% is coming from international standards organizations (e.g. ISO, IEC, ITU) or treaty organizations (e.g. IMO), and 0.1% from other foreign national or industry standards. This representation plainly shows that international standards are not widely incorporated into US regulations yet. One interpretation problem may exist because some of API, ASTM, ASME, UL standards, referenced in the SIBR database, may be harmonized with relevant ISO and IEC standards. Again without its detailed information about its harmonization status with de jure international standards organization each other, this could mislead. Specially adopting SDO standards or those that are developed in parallel may include the acronym of both SDOs, but the adopted SDOs may not normally include such information in their standards number.

<sup>30</sup> ASTM International, 2011, Annual Report

<sup>31</sup> ASTM citation database is provided from personal communication with James Olshefsky, Director, Global Cooperation at ASTM International

<sup>32</sup> The SIBR Database Administration System is operated by the National Institute of Standards and Technology (NIST) and available at <http://standards.gov/sibr/query/index.cfm>

<sup>33</sup> The number of standards can vary whether the counting method differentiates parts of a standard, or old-newer versions.

<sup>34</sup> While NIST makes every effort to continuously update the SIBR Database to reflect changes to standards referenced in the CFR, NIST cannot guarantee the accuracy or completeness of the SIBR Database.

**Comment [nam10]:** Yes, at a NIST Workshop on Setting the Standard for Competing Globally, held in 2009, ASTM and other attendees (including some US-based SDOs) asked for a federated database of standards. I believe that they may not have the best data on this themselves!

**Comment [nam11]:** ASTM has to re-brand their standards in some of the industrialized nations. I think NFPA may have data on their international adoptions also – you can call Olga Caledonia and speak to her at 617 984 7231. It might be worth a try to get one more!

**Comment [nam12]:** Yes, but we have no measure of how many standards that are developed by US-based SDOs are aligned with those from ISO, IEC etc.

**Comment [nam13]:** Also, since some organizations have put "international" in their name, they may be counted as international???

This section presents the various reality of regulatory practice in the world, and detailed measurement is laborious and impractical in most cases.

## 5. Summary and Conclusions

The present paper aims at evaluating the efficiency of national standards governance, with some focus on the US. To make a judgement on that question empirically, this study first analyzes how the harmonization trends, mainly being mandated by the TBT agreement, have changed the scenery of standards-setting and regulation practices in the world. Some of the key findings are as follows:

- First, this analysis confirms that Europe and the US have led ISO and IEC activities, and found that Asia has emerged as a new leader as well during the last decade. The overall influence of EU is still the largest while, measure in this study, found to be larger than the sum of North America and Asia.
- Second, the investigation result delivers firm proof that ISO and IEC standards have been rapidly and successfully penetrating into national standards in all the analyzed areas of Europe, Gulf, and Asia-Pacific during the last decade. The harmonization rate is highest in Europe, but has rapidly increased in other regions including Asia and North America as well.
- Third, the incorporating of international standards in regulations seems to be increasing, but still majority of regulations are based on national or regional standards. The usage level of international standards is pretty much country or industry dependent.

This study attempts to measure the efficiency of national standards governance by comparing its contribution, standards developments, and citation (referencing) data with a lens of global harmonization. Noting such similar studies have been very scarce yet, this paper has contributed to the future development of a model to measure the efficiency or effectiveness of national standards system.

Although this study has conducted empirical analysis based on obtainable data as much as possible, there is certain limitation and possibility of biased interpretation based on such imperfect data. The restraints of this study present that standards and regulatory community may need-benefit from a much more coordinated referencing system for higher transparency and traceability. Also, it is suggested that the U.S standards community may develop and publicize its harmonization, whether adopting or being adopted, and citation database at individual SDO level and collective US-domiciled SDO level. Such database may provide much cleared picture of today in the US, and better recognition for potential regulators and regulated parties inside and outside of the US.

**Comment [nam14]:** Many US-domiciled SDOs speak about alignment rather than harmonization... It may be because the process of developing US standards is from the bottom up rather than in other countries that develop standards from the top down.

**Comment [nam15]:** Perhaps this is because ISO is based in Europe, at least in part???

## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Wednesday, April 25, 2012 10:21 AM  
**To:** william.grosshandler@nist.gov  
**Cc:** Crum, Edith Gail Mrs.  
**Subject:** updated FW: NIST Standards Policy DMS information

Updated to include Alkan's suggestion:

Shyam,

We have reviewed the document on NIST Standards Policy and received several comments from EL staff with suggestions/comments as follows:

Revise the definition for Policy Making Group: **A group in an organization that formulates basic principles and associated guidelines to direct and limit the organization's actions in pursuit of long-term goals.**

Revise the paragraph on page 4 regarding Standards Body to clarify that ANSI accredits organizations/processes rather than committees, as follows: **"Examples include the American National Standards Institute (ANSI) and organizations accredited by ANSI, ASTM International, the American Society of Mechanical Engineers (ASME), the BioAPI Consortium, the Institute for Electrical and Electronics Engineers Standards Association (IEEE-SA) and the International Telecommunication Union's Telecommunication Standardization Sector (ITU-T)."**

Provide a link to the updated **NISTIR 6778 Guidelines for NIST Staff Participating in Voluntary Standards Developing Organizations** or highlight this document more prominently in the text – the updated version contains lots of relevant and helpful explanatory information.

Although ICC is an SDO and we call these codes "documentary standards", there is some confusion as to whether this policy applies to code, regulatory and legislative activities. Provide additional explanation at the beginning of the document and/or a footnote to clarify the differences between standards, codes, regulations and laws and clarify the activities that are/are not covered by this policy. It might be helpful to have a reference to NIST's position on contributions to Federal rulemaking (such as when we work with CPSC, EPA, or NRC) or work with the model code development committees such as those at ICC.

Regarding the language that organizational units must incorporate into all contracts, agreements and letters of intent regarding the payment of administrative services, i.e. ***"Our payment of these administrative service fees is based on the understanding that:***

***(1) The fees will be used exclusively to help cover costs associated with standards committee operation and communication, e.g., preparation and distribution of minutes, circulation of drafts for comment, meeting arrangements...*** please ensure that AMD is aware of this requirement.

We found the document to be well-structured and clearly written.  
Thank you for the opportunity to comment.

Nancy McNabb

Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** McNabb, Nancy  
**Sent:** Wednesday, April 25, 2012 10:02 AM  
**To:** Grosshandler, William  
**Cc:** Crum, Edith Gail Mrs.  
**Subject:** RE: NIST Standards Policy DMS information

Here you go Bill:

Shyam,

We have reviewed the document on NIST Standards Policy and received several comments from EL staff with suggestions/comments as follows:

Revise the definition for Policy Making Group: **A group in an organization that formulates basic principles and associated guidelines to direct and limit the organization's actions in pursuit of long-term goals.**

Provide a link to the updated **NISTIR 6778 Guidelines for NIST Staff Participating in Voluntary Standards Developing Organizations** or highlight this document more prominently in the text – the updated version contains lots of relevant and helpful explanatory information.

Although ICC is an SDO and we call these codes “documentary standards”, there is some confusion as to whether this policy applies to code, regulatory and legislative activities. Provide additional explanation at the beginning of the document and/or a footnote to clarify the differences between standards, codes, regulations and laws and clarify the activities that are/are not covered by this policy. It might be helpful to have a reference to NIST’s position on contributions to Federal rulemaking (such as when we work with CPSC, EPA, or NRC) or work with the model code development committees such as those at ICC.

Regarding the language that organizational units must incorporate into all contracts, agreements and letters of intent regarding the payment of administrative services, i.e. *"Our payment of these administrative service fees is based on the understanding that:*

*(1) The fees will be used exclusively to help cover costs associated with standards committee operation and communication, e.g., preparation and distribution of minutes, circulation of drafts for comment, meeting arrangements...* please ensure that AMD is aware of this requirement.

We found the document to be well-structured and clearly written.  
Thank you for the opportunity to comment.

Nancy McNabb  
Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** Grosshandler, William  
**Sent:** Wednesday, April 25, 2012 9:23 AM  
**To:** McNabb, Nancy  
**Cc:** Crum, Edith Gail Mrs.  
**Subject:** RE: NIST Standards Policy DMS information

Nancy,

Put together an email which summarizes the EL response. I have attached a comment received by me from Millie that you should also address. Regarding any misunderstanding within EL on our role in codes and in support of regulations, if this is covered explicitly in NISTIR 6778 then let's make sure that Jason and EL staff are aware of that information. Please suggest a footnote or similar language for Mary to consider that deals with the issue that Jason has. Send me your email and I will forward it to Shyam once I have reviewed it.

Thank you.

Bill

---

**From:** McNabb, Nancy  
**Sent:** Wednesday, April 25, 2012 9:00 AM  
**To:** Grosshandler, William  
**Subject:** FW: NIST Standards Policy DMS information

Hi Bill,

I received only two comments, from Jason Averill and from Bob Chapman.

Bob comments:

**I have reviewed the Participation in Documentary Standards Activities document which you sent out and have no suggested changes. I found the document to be well-structured and clearly written.**

**Thanks for the opportunity to comment.**

Jason's comments:

**My only real comment applies to the language and scope of the document. When I read the definition of Standard:**

**“Any voluntary or mandatory set of rules, conditions, or requirements concerned with the definition of terms; classification of components; delineation of procedures; specification of dimensions, materials, performance, design, or operations; measurement of quality and quantity in describing materials, products, systems, services, or practices; or descriptions of fit and measurement of size,”**

**I find that most of what we do fits somehow within that definition.**

**But we in FRD routinely distinguish between standards, codes, regulations, and laws and I believe that the NIST-level document will benefit from a statement at the beginning of the document which clarifies all the activities which are covered by this policy. For example, what is the NIST (or EL) position on contributions to Federal rulemaking (such as when we work with CPSC, EPA, or NRC)? What about the national model codes such as ICC and the International Building Code? There could easily be confusion by someone reading this policy as to whether it applies to these kind of activities...**

I provided some answers to Jason when I received this and I will forward those in case I did not copy you on them. I think that Jason's comments illustrate the kind of misunderstandings of basic codes and standards knowledge that is common in the EL.

Although you advised me that a “Codes & Standards 101” course was unnecessary (and I tried to slip in a few of these basics when I did my program presentation) it is clear that there is confusion...

Perhaps we can do something on SharePoint and also clarify Jason's additional policy questions below?

**Also, I have a semi-related question for EL policy: what is our engagement strategy on local adoption? Sprinklers got into the IRC, but are getting killed at the state and city adoptions. Should we be engaged here? Are there Federal vs states rights issues here? It's not practical to go to every local adoption meeting, of course, but is there a happy medium?**

Please advise – I am happy to do something to help...

Regarding my review of the document, I concur with Bob.

Also, I think that it is clear that the information set forth is intended for NIST staff participation in an organization or body for documentary standards development, not in the SDO's outreach or advocacy efforts nor does it apply to our work with other federal agencies. There is much more information in the NISTIR 6778 document regarding participation activities...

Please let me know how you wish me to proceed with this information – just forward it to Shyam or???

Thanks!

Nancy McNabb  
Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** Shyam-Sunder, Sivaraj

**Sent:** Thursday, April 12, 2012 6:11 PM

**To:** Arnold, George W; Cauffman, Stephen A.; Chapman, Robert E.; Currens, Christopher; Fanney, A. Hunter; Glick, Millie; Grosshandler, William; Hamins, Anthony Dr.; Harary, Howard H. Dr.; Hayes, John(Jack) R.; Letvin, Eric; Levitan, Marc; McNabb, Nancy; Perry, Karen B. Mrs.; Shyam-Sunder, Sivaraj; Srinivasan, Vijay; Wavering, Albert J.

**Cc:** Crum, Edith Gail Mrs.

**Subject:** FW: NIST Standards Policy DMS information

Bill,

Please work with Nancy and the EL Leadership Team to coordinate EL's review of this document and consolidate comments for transmission back to Mary by April 30, 2012. I'd appreciate time to review the comments before we submit. Thanks.

Shyam

NR



NR





## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Wednesday, June 15, 2011 6:47 AM  
**To:** 'jdolan@nfpa.org'  
**Subject:** Fw: Federal Forum on Codes and Standards: Next Meeting June 20, 2011- PLEASE RSVP!  
**Attachments:** Fed Forum- agenda draft2.docx

Jim

Did OSHA include NFPA1?

I don't hear about these things anymore but that was one of the last letters...

Still in Boston or I would look it up myself!

---

**From:** David Karmol <[dkarmol@iccsafe.org](mailto:dkarmol@iccsafe.org)>  
**To:** David Karmol <[dkarmol@iccsafe.org](mailto:dkarmol@iccsafe.org)>; [chibbaro.mat@dol.gov](mailto:chibbaro.mat@dol.gov) <[chibbaro.mat@dol.gov](mailto:chibbaro.mat@dol.gov)>; [hamilton.bill@dol.gov](mailto:hamilton.bill@dol.gov) <[hamilton.bill@dol.gov](mailto:hamilton.bill@dol.gov)>; [dave.frale@gsa.gov](mailto:dave.frale@gsa.gov) <[dave.frale@gsa.gov](mailto:dave.frale@gsa.gov)>; [rgarrett@cpsc.gov](mailto:rgarrett@cpsc.gov) <[rgarrett@cpsc.gov](mailto:rgarrett@cpsc.gov)>; [hammesdj@state.gov](mailto:hammesdj@state.gov) <[hammesdj@state.gov](mailto:hammesdj@state.gov)>; [wlogan@comdt.uscg.mil](mailto:wlogan@comdt.uscg.mil) <[wlogan@comdt.uscg.mil](mailto:wlogan@comdt.uscg.mil)>; [mazz@access-board.gov](mailto:mazz@access-board.gov) <[mazz@access-board.gov](mailto:mazz@access-board.gov)>; [laura.doyle@gsa.gov](mailto:laura.doyle@gsa.gov) <[laura.doyle@gsa.gov](mailto:laura.doyle@gsa.gov)>; Donaldson, Mary; [john.ingargiola@dhs.gov](mailto:john.ingargiola@dhs.gov) <[john.ingargiola@dhs.gov](mailto:john.ingargiola@dhs.gov)>; [william.g.logan@uscg.mil](mailto:william.g.logan@uscg.mil) <[william.g.logan@uscg.mil](mailto:william.g.logan@uscg.mil)>; [joseph.simone@navy.mil](mailto:joseph.simone@navy.mil) <[joseph.simone@navy.mil](mailto:joseph.simone@navy.mil)>; [rxarrington@bop.gov](mailto:rxarrington@bop.gov) <[rxarrington@bop.gov](mailto:rxarrington@bop.gov)>; Mark C. Smock <[MSmock@bop.gov](mailto:MSmock@bop.gov)>; [david.a.pezza@usace.army.mil](mailto:david.a.pezza@usace.army.mil) <[david.a.pezza@usace.army.mil](mailto:david.a.pezza@usace.army.mil)>; Rossbach, Peter J HQ02 <[Peter.J.Rossbach@usace.army.mil](mailto:Peter.J.Rossbach@usace.army.mil)>; Sanborn, Harold ERDC-CERL-IL <[Harold.Sanborn@usace.army.mil](mailto:Harold.Sanborn@usace.army.mil)>; Mucklow, Eric S HQ <[Eric.Mucklow@usace.army.mil](mailto:Eric.Mucklow@usace.army.mil)>; Jay Peters <[jpeters@iccsafe.org](mailto:jpeters@iccsafe.org)>; Ingargiola, John <[John.Ingargiola@fema.gov](mailto:John.Ingargiola@fema.gov)>; [joseph.dafin@gsa.gov](mailto:joseph.dafin@gsa.gov) <[joseph.dafin@gsa.gov](mailto:joseph.dafin@gsa.gov)>; Mino, George, Mr, OSD-ATL <[George.Mino@osd.mil](mailto:George.Mino@osd.mil)>; Shawn Martin <[smartin@iccsafe.org](mailto:smartin@iccsafe.org)>; [hullingerce@state.gov](mailto:hullingerce@state.gov) <[hullingerce@state.gov](mailto:hullingerce@state.gov)>; [kurt.knight@va.gov](mailto:kurt.knight@va.gov) <[kurt.knight@va.gov](mailto:kurt.knight@va.gov)>; McNabb, Nancy  
**Cc:** Sara Yerkes <[SYerkes@iccsafe.org](mailto:SYerkes@iccsafe.org)>; Sean Wallace <[swallace@iccsafe.org](mailto:swallace@iccsafe.org)>  
**Sent:** Tue Jun 14 15:51:57 2011  
**Subject:** RE: Federal Forum on Codes and Standards: Next Meeting June 20, 2011- PLEASE RSVP!

A draft agenda is attached, reflecting items requested for the agenda from the last meeting of the group. Please note that we will discuss the recently released final rule from OSHA, allowing use of the IFC to demonstrate compliance with Sec. 1910, subpart E. We will also have a discussion of state code adoptions, and adoption status, as requested at the meeting last summer.

Our Senior Vice President for Government Relations, Sara Yerkes, will conduct the meeting.

The meeting will be held in the ICC Conference Room, at our HQ at 500 New Jersey NW, Washington, DC. For lunch planning, please let me know by June 17 if you will be attending in person.

The call –in for those unable to attend in person, is as follows:

877-224-3999

Pin# 888 422 7233 6243

**FOR LUNCH PLANNING PURPOSES- PLEASE RSVP BEFORE FRIDAY, JUNE 17.**

**Thank You!!**

I have heard from the following, and if your name is here, you do not need to send me another email: Sanborn, Hammes, Logan, Chibbaro, Hamilton, McNabb.

IF your name is not shown above, please RSVP, so we can order sufficient food for lunch, and assure adequate seating.

Regards,

David L. Karmol  
Vice President, Federal and External Affairs  
International Code Council  
[dkarmol@iccsafe.org](mailto:dkarmol@iccsafe.org)  
202-370-1800, ext 6243

## Codes and Standards Adoption and Enforcement Topical Committee

### Findings and Recommendations

- At the state and local level where code adoption and enforcement is largely conducted, limited resources—both financial and technical—limits the ability to achieve the requirements provided by codes and standards.
- The codes and standards development, adoption, and enforcement process is complicated and often misunderstood by policymakers and the general public. Education initiatives to improve understanding are needed.

### **Introduction**

Commercial and residential buildings and their surrounding communities dominate the landscape of people's lives and livelihoods in the United States in ways that are both subtle and profound. Therefore, human behavior can also have a significant impact on how buildings actually perform.

#### *Building Codes: Bringing Best Practice to Scale*

Building codes cover the multi-dimensional aspects of the design and construction of new and existing buildings. Ranging from energy efficiency, to life safety, fire, water, accessibility, indoor air quality, and many other issues, building codes set baseline minimum requirements and represent an attempt to bring best practices to scale for the benefit of society.

Most model codes and standards, such as ICC's International Energy Conservation Code (IECC) and ANSI/ASHRAE/IES Standard 90.1 Energy Standard for Buildings Except Low-Rise Residential Buildings, and NFPA 1000: Standard for Fire Service Professional Qualifications Accreditation and Certification Systems, are developed according to rigorous principles based on consensus, openness, balance, transparency, and due process.

Continual improvements within to the codes result in increasing energy efficiency, health, and safety, and accessibility in a consistent and long lasting manner when they are adopted and compliance is verified. Buildings last a long time, and codes and standards allow the benefits of improved construction today to be enjoyed for 30 to 50 years.

In the U.S., codes and standards are typically developed in the private sector to meet demands of society. As technology, building science knowledge, and understanding of risk improves, codes and standards evolve to incorporate such improvements. Both federal law and Presidential Executive Orders have set clear goals of increasing efficiency for buildings. Codes have been keeping pace with the demand for higher efficiency. For instance, a building built according to ANSI/ASHRAE/IESNA Standard 90.1-2007 is 35 percent more energy efficient than one built in compliance with ASHRAE/IES Standard 90-75 and ANSI/ASHRAE/IES Standard 90A-1980 (without considering plug and process loads). One built in accordance with Standard 90.1-2010 is expected to use less than half the energy per floor area than one built to Standards 90-75 and 90A-1980. As the IECC and its predecessor documents, the MCEC and MEC parallel the 90 series of standards, similar efficiency increases could be attributable to the 2012 IECC in comparison to the 1977 MCEC or the 1982 MEC.

**Comment [m1]:** Insert similar references to fire, health & other safety, etc. codes.

**Comment [rc2]:** Update—evolution of codes, names?, federal vs. private role

## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Tuesday, December 07, 2010 8:30 AM  
**To:** Ryan Colker  
**Subject:** RE: Updated Codes & Standards TC Draft  
**Attachments:** Nancy CC Codes and Standards.docx

Hi Ryan,

Here are my suggestions.  
It still needs an intro and conclusion, I think.  
I have training all day but am hoping to be there tomorrow...  
Thanks for putting this together!

Nancy McNabb  
Manager, Building & Fire Codes & Standards  
NIST Engineering Lab

---

**From:** Ryan Colker [<mailto:rcolker@nibs.org>]  
**Sent:** Monday, December 06, 2010 11:39 AM  
**To:** [aguinn@astm.org](mailto:aguinn@astm.org); [aweidman@xpsa.com](mailto:aweidman@xpsa.com); [dain.hansen@iapmo.org](mailto:dain.hansen@iapmo.org); [david.conover@pnl.gov](mailto:david.conover@pnl.gov);  
[dlaoang@primerachicago.com](mailto:dlaoang@primerachicago.com); [dread@ashrae.org](mailto:dread@ashrae.org); [gitlin.susan@epamail.epa.gov](mailto:gitlin.susan@epamail.epa.gov); [jessyahenderson@aia.org](mailto:jessyahenderson@aia.org);  
[mames@ashrae.org](mailto:mames@ashrae.org); [mdesantiago@primerachicago.com](mailto:mdesantiago@primerachicago.com); [mike@3rdwave-consulting.com](mailto:mike@3rdwave-consulting.com); McNabb, Nancy;  
[pete.demarco@iapmo.org](mailto:pete.demarco@iapmo.org); [rdevries@nuwool.com](mailto:rdevries@nuwool.com)  
**Subject:** Updated Codes & Standards TC Draft

Codes and Standards Topical Committee members,

Thanks to all who were able to participate in today's call. Attached is a revised draft for the report. Anthony and I will be updating the Introduction further and I encourage you to review and identify any findings or recommendations that should be highlighted.

I would like to provide a near final draft to the full Consultative Council at their meeting on Wednesday. Therefore, please try to provide any updates by noon on Tuesday.

Thank you so much for your participation.

Ryan

Ryan M. Colker, J.D.  
Director of the Consultative Council/Presidential Advisor



National Institute of Building Sciences  
1090 Vermont Avenue, NW, Suite 700  
Washington, DC 20005-4950

(202) 289-7800 x133 phone

(202) 289-1092 fax

[www.nibs.org](http://www.nibs.org)

***An Authoritative Source of Innovative Solutions for the Built Environment***

Join us for the Institute's 2010 Annual Meeting in conjunction with Ecobuild America.

For more information, visit [www.nibs.org/newsevents/events/2010AnnualMeeting/](http://www.nibs.org/newsevents/events/2010AnnualMeeting/)

Even with this progress, many challenges – as well as opportunities – remain on the path to more safer and more accessible and energy-efficient buildings.

### Standard & Code Adoption: Implementing Best Baseline Practice

Building code requirements are most often established through adoption by state or local government as well as federal agencies for federally owned or leased buildings, although private developers can may also impose these documents or more stringent requirements as a condition of a construction contract. Ideally, these adoptions occur immediately following the release of updated national model codes – approximately every three years. Increasing code stringency in a prescriptive manner provides new challenges to the building industry at large and to state and local agencies that may be faced are charged with administering and enforcing the codes.

**Comment [nam3]:** Federal agencies also regulate the design and construction of some buildings in the private sector, e.g. OSHA has many requirements for the work place and schools and health care facilities that receive federal funding also must meet portions of the model codes and standards...

~~Despite significant safety, health, energy and cost benefits associated with the code, most adoption processes face fierce opposition fueled by false claims of negative industry and consumer impact. Underlying these debates is the issue of whether or not the code should improve and how. Many unprepared manufacturers fight new requirements their products cannot meet, builders may oppose unknown increases in cost, and code officials are reluctant to accept new practices they do not know how to enforce or may require them to undertake additional unfunded enforcement responsibility. This resistance is fueled by the short timeframe that sometimes occurs between the adoption and effective dates of the code but is primarily driven by the prescriptive nature of the codes. If codes are to advance buildings toward net zero energy, and significantly improving building health and safety, new approaches to presenting the code provisions, such as outcome-based objectives need to be explored that consider the building as a whole.~~

The success of the building and construction market to meet code requirements relies on the availability and pricing of products and equipment, ~~such as insulation and windows~~. Equally important is the appropriate knowledge and skill among designers and contractors. Yet product development and workforce training takes time which is not facilitated by the code. ~~Rather, each version of many building codes is arrived at in isolation without consideration of what comes next – working to reach an efficiency goal (as in the case of ASHRAE), or decided in an open debate (which occurs in ICC final action hearings). Once modified and adopted, developed, at best, states typically provide a small window of time to phase in newly adopted codes. Although many in the construction community are aware that change is coming, they None of these processes provide the market with the opportunity to position itself are often reluctant to embrace the changes and to support code compliance.~~

The recent increase in development of reach codes provides a straightforward potential solution on multiple levels. These codes have been set up in several states so that jurisdictions choosing to adopt higher standards do so in a consistent manner. However, if these codes were to automatically become the next minimum code, they would also provide the predictability and experience needed to support significant code compliance. Once established, incentive programs could also be used to promote the reach code as a voluntary performance level for construction. Trainings, resources, and financial incentives would work to fuel product development, skills, and experience that would carry over to the broader market once the requirements became mandatory. In considering this, while reach codes may provide an advance notice of

prescriptions to come, it is clearly evident that ~~an~~ outcome-based objective that can gradually reduce over time ~~is-are~~ preferable, not unlike the mileage goals for the auto industry. The industry was given future goals without telling them how to design and construct the car.

A second issue that tends to support not adopting stronger codes is that of ~~resource constraints~~. ~~Many~~ ~~Some~~ state policymakers are averse to adopting a code that will require significant and costly support. As codes advance further and faster, the perception is that more resources will need to be invested to help the industry keep up. If these are not available, adoptions ~~may-is likely to hit a wall~~ ~~stall~~. Clearly compliance is a consideration.

Comment [rc4]: Identify as key issue, recommendations

An outcome-based objective that can be readily verified can act as a level ~~forte~~ solving this problem. For instance, where code compliance is not achieved on an annual basis, penalties in the form of utility surcharges or property tax fines can be imposed. These may be more effective in the long run than the present situation where ~~the buildings receive a certificate of occupancy upon completion with limited or no inspections thereafter, depending upon the occupancy, is only looked at up to occupancy and there is no regard for continued performance.~~

Adoption of codes can occur directly through legislative ~~action~~ or by regulatory action ~~through agencies authorized by the legislative body to oversee the development and adoption of codes.~~ Such processes vary by state but typically require public participation at some point in the process. Often starting with a model code or standard as a baseline, ~~When adoption is accomplished through legislation, a committee may be appointed to provide recommendations and/or draft the legislation. When adoption occurs through a regulatory process, states and local governments often appoint an advisory body comprising representatives of the design, building construction, and enforcement communities. This advisory panel recommends revisions that should be considered for adoption. In basing their recommendations on model codes, the advisory panel considers modifications are considered to the model codes to account for local preferences and construction practices. The panel also may serve as a source of information during the adoption process. Their recommendations then enter a public review process. Depending on the mechanism for final adoption, additional procedures may be necessary to comply with regulations or legislative requirements.~~

~~The code adoption process generally includes the following steps (note that the details of the adoption process vary depending on whether the code is adopted by legislation, regulation, or a local government):~~

Comment [rc5]: Condense: State modification, adoption...

~~1. A change is initiated by a legislative or regulatory agency with the authority to promulgate codes. Interested or affected parties also may initiate a change. An advisory body typically is convened and will recommend a new code or revisions to an existing code.~~

Comment [rc6]: Graphical?

~~2. The proposal undergoes a public review process consistent with the legislative or regulatory process under which the code is being considered. Public review options include publishing a notice in key publications, filing notices of intent, or holding public hearings. Interested and affected parties are invited to submit written or oral comments.~~

~~3. The results of the review process are incorporated into the proposal, and the final legislation or regulation is prepared for approval.~~

~~4. The approving authority reviews the legislation or regulation. Revisions may be submitted to the designated authority for final approval or for filing.~~

5. After being filed or approved, the code becomes effective, usually on some specified future date. This delay creates a grace period that allows those regulated to become familiar with any new requirements. The period between adoption and effective date typically varies from 30 days to six months.

Some states adopt or revise codes in concert with the publication of a new edition of new codes. This may occur either through a legislative or regulatory process, or when the state regulation or legislation refers to “the most recent edition,” in which case the adoption will simply occur after the model document has been reviewed for consistency with the empowering legislation, automatically without formal action. The effective date of a new adoption can also be tied to the publication date of a standard or model code, e.g., “This regulation shall take effect one month from publication of the adopted model energy code.” Other states review the new editions on a case-by-case basis to consider adoption, without a designated time line for adoption.

### Code Compliance

~~Acknowledgement of deficiencies in enforcement practices that are intended to ensure compliance has recently grown to a point where they are now the focus of proposed federal legislation, American Recovery and Reinvestment Act funding prerequisites, and major activity by the advocacy and technical assistance communities. While the gap between practice and code compliance is unknown, the lack of building code enforcement and understanding of requirements by designers, and contractors and building code officials clearly indicates a significant shortfall in the building sector when it comes to building codes. As with adoption, strengthening energy efficiency, health, and safety and accessibility wings over time presents several challenges to code compliance mechanisms. However, there is potential to significantly improve overall compliance and advance efficiency, health, and safety through changes to the process and scope of enforcement, and as noted above, the format of codes can also have a significant impact on the means of enforcement.~~

Making sure that a building is in compliance with construction codes and standards is an important step in the building process. Administration and enforcement of codes and standards is critical to realizing safe, healthy, energy efficient and accessible buildings. The responsibility to administer and enforce the building code typically falls upon states or local jurisdictions, and the responsibility to submit compliant design documents for a building permit falls on developers, designers, and contractors. Education and communication regarding codes and standards is vital to the effective delivery of both enforcement and compliance. Enforcement strategies vary according to a state or local government’s regulatory authority, resources, and staffing; programs may include all or some of the following activities:

- Review of plans
- Review of products, materials, and equipment specifications
- Review of tests, certification reports, and product listings
- Review of supporting calculations
- Inspection of the building and its systems during construction
- Evaluation of materials substituted in the field
- Inspection immediately prior to occupancy

**Comment [nam7]:** Most legal counsel would advise that a model document may not be adopted “automatically” because they may not surrender their authority to private SDOs...some review must take place – in the case of the energy codes, perhaps this is ignored because the federal government mandates that they adopt a later code. The federal government must do the review, because they can not surrender their authority absent a review.



- Issuance of building permit, certificate of occupancy and/or other administrative documents
- Processing of variance/appeal requests to the building code.

The administration and enforcement of codes is typically local with the state having oversight and/or code enforcement for some classes of buildings at that level as well. Local agencies that are authorized and have the proper training and resources will typically enforce the adopted codes. The proximity of local agencies to the construction site and construction community offers the potential for more regular enforcement but occasionally the state must supply expertise that is not available at the local level. Although jurisdictions are empowered by statute and regulations that set forth the local code administration processes, the availability of resources determines the quality and extent to which plan reviews and construction inspections are performed. Jurisdictions vary, and their political leadership plays a role in determining the emphasis that is placed on local development, construction and enforcement. These differences often lead to differences in the rate of code compliance across a state. Compliance is enhanced when a state code agency actively supports local governments with education, training and technical information services etc. necessary to administer and enforce the code.

Comment [rc8]: Condense?

Comment [nam9]: These are two separate activities that are the legal mandates. Enforcement has to do with inspections and plan review. Administration has to do with the process of permitting, what inspections are required, how much does it cost, how can work be stopped, what is the appeal process, what is the variance process, etc. Some would say that the chapter on administration is what makes a code a code and not a standard!

Comment [nam10]: I think you should leave this in as it supports earlier discussion that is less to the point - this belongs here!

Some states allow local jurisdictions to conduct enforcement activities that are usually the state's responsibility. This strategy offers the advantages associated with state enforcement, recognizes those local governments with equivalent enforcement capabilities, and helps ensure comparable levels of compliance. Continued state assistance helps to ensure a consistent level of enforcement by local jurisdictions. A hybrid approach might involve the state conducting the plan review, and the local authority conducting the construction inspection.

It is also important for all stakeholders to know when a new code is expected and understand its requirements. Many states or jurisdictions start this education process months in advance of the code change and/or allow a window of compliance, e.g. permits can be issued for two different editions of the code during a specified grace period. Acceptance and use of the new code is enhanced by effective outreach, education and training.

There are several common methods available to document compliance, including prescriptive forms, software-generated forms, and modeling runs. Local jurisdictions can generate simplified prescriptive forms, typically for residential construction. There are also software programs such as REScheck™ and COMcheck™ that can be used to demonstrate compliance. Software checklists and tools such as these have encouraged code officials to become more productive and comfortable with performance-based codes.

## McNabb, Nancy

---

**From:** McNabb, Nancy  
**Sent:** Thursday, December 12, 2013 4:02 PM  
**To:** Hamins, Anthony  
**Subject:** FW: Feinstein's new Fire Safe Communities bill

Hi Anthony

Per our earlier conversation, see the chain below.

Please keep confidential!!!

Pan Leschak worked for Lou Southard – at the time, he was responsible for the FW funding.

This information is dated – I am not sure what has happened with the program since I left.

Shortly after I came to NIST, Dave Nuss was put in charge of all of the WUI programs – he hired a lot of contractors to work on FW adoptions...



**Lew Southard**  
US Forest Service  
Aviation/FIRE WISE  
  
(202) 205-1503 Work  
lsouthard@fs.fed.us

Nancy McNabb  
Manager  
Building & Fire Codes & Standards  
NIST EL

---

**From:** Varone, Curtis  
**Sent:** Thursday, November 19, 2009 1:57 PM  
**To:** McNabb, Nancy; Steinberg, Michele; Keith, Gary  
**Subject:** RE: Feinstein's new Fire Safe Communities bill

One thing that struck me while reading the bill was its use of yet another term: Fire Safe Communities, to go along with Firewise Communities and Fire Adapted Communities.....

Nancy – I am not sure if you were aware but the Forest Service is embracing the term Fire Adapted Communities I believe in an effort to have a generic term for Firewise. We now own the urls firewise.org, fireadpatedcommunties.com and ,org, and fireadaptivecommunities.com and .org. I just checked and firesafecommunities.com or .org is not available.

I would suggest we follow the terms closely and advocate the bill refer to (1) Firewise... and if not (2) Fire Adapted or (3) Fire Adaptive

Curt

---

**From:** McNabb, Nancy  
**Sent:** Thursday, November 19, 2009 1:35 PM

**To:** Steinberg, Michele; Keith, Gary; Varone, Curtis  
**Subject:** Re: Feinstein's new Fire Safe Communities bill

Hi Michele

This looks the same to me

Diane has not moved the bill

It has only 2 cosponsors and no hearings have been held

I will check to make sure that the USFS did not give you a slightly different version and get back ASAP

Diane got a lot of stimulus money for the kinds of things mentioned in the bill

There have been a few other bills dropped that mention Firewise type programs but nothing has moved since the FLAME Act

I hope this helps!

---

**From:** Steinberg, Michele

**To:** Keith, Gary; Varone, Curtis; McNabb, Nancy

**Sent:** Thu Nov 19 12:09:24 2009

**Subject:** FW: Feinstein's new Fire Safe Communities bill

I assume this is a new markup? Much is new about it in spite of the April 2009 date.

*--Michele*

---

**From:** Pam Leschak [<mailto:pleschak@fs.fed.us>]

**Sent:** Thursday, November 19, 2009 11:57 AM

**To:** Varone, Curtis; Steinberg, Michele; Pam Leschak; Pam Jakes; [wgm@AlachuaCounty.US](mailto:wgm@AlachuaCounty.US); [adozier@GFC.STATE.GA.US](mailto:adozier@GFC.STATE.GA.US);

[jane\\_arteaga@ca.blm.gov](mailto:jane_arteaga@ca.blm.gov); [kim\\_zagaris@oes.ca.gov](mailto:kim_zagaris@oes.ca.gov); [maris.gabliks@DEP.state.nj.us](mailto:maris.gabliks@DEP.state.nj.us); [mark.gray@dnr.wa.gov](mailto:mark.gray@dnr.wa.gov);

[phyllis.krietz@dhs.gov](mailto:phyllis.krietz@dhs.gov); [ktdargan@hughes.net](mailto:ktdargan@hughes.net); [sid\\_beckman@nps.gov](mailto:sid_beckman@nps.gov); Steve Smith; Erik Christiansen;

David\_Peters/PORTLAND/BIA/DOI.BIA; [maris.gabliks@dep.state.nj.us](mailto:maris.gabliks@dep.state.nj.us); [mark.gray@dnr.wa.gov](mailto:mark.gray@dnr.wa.gov);

Sherry\_Garey/NIFC/BLM/DOI.BLM; [wgm@AlachuaCounty.us](mailto:wgm@AlachuaCounty.us)

**Subject:** Feinstein's new Fire Safe Communities bill

FYI,

Pam Leschak

Wildland Urban Interface Program Manager

National Firewise Coordinator

USFS, Fire and Aviation Management

National Interagency Fire Center

3833 S. Development Av.

Boise, ID 83705

208 387 5612 NIFC

218 3411952 BlackBerry

## **Fire Safe Communities Act of 2009 (Introduced in Senate)**

S 762 IS

111th CONGRESS

1st Session

**S. 762**

To promote fire safe communities and for other purposes.

IN THE SENATE OF THE UNITED STATES

April 1, 2009

Mrs. FEINSTEIN introduced the following bill; which was read twice and referred to the Committee on Homeland Security and Governmental Affairs

---

A BILL

To promote fire safe communities and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE.**

This Act may be cited as the 'Fire Safe Communities Act of 2009'.

**SEC. 2. DEFINITIONS.**

In this Act:

- (1) FIRE HAZARD AREA- The term 'fire hazard area' means an area at significant risk from wildland fire as determined by--
- (A) the applicable State forestry agency or equivalent State agency; or
  - (B) the Under Secretary.
- (2) FIRE SAFE COMMUNITY- The term 'fire safe community' means--
- (A) a subdivision of a State that has adopted a national wildland fire code, standard, or ordinance; or
  - (B) a municipality at risk that has adopted local ordinances that--
- (i) are consistent with more than one of the elements set out in paragraph (4)(C)(ii); and
  - (ii) the Under Secretary determines provide generally accepted levels of fire protection.
- (3) MUNICIPALITY AT RISK- The term 'municipality at risk' means a subdivision of a State that is located in, or contains, a fire hazard area.
- (4) NATIONAL WILDLAND FIRE CODE, STANDARD, OR ORDINANCE- The term 'national wildland fire code, standard, or ordinance' means--
- (A) the most recent publication of National Fire Protection Association code number 1141, 1142, or 1144;
  - (B) the most recent publication of the International Wildland-Urban Interface Code of the International Code Council; or
  - (C) any other code which--
- (i) the Under Secretary determines provides the same, or better, standards for protection against wildland fire as a code described in subparagraph (A) or (B); and
  - (ii) may include--
- (I) specifications for construction materials and techniques for use in municipalities at risk;
  - (II) guidelines for the placement of utilities, defensible space, and vegetation management;
  - (III) enforcement mechanisms for compliance with defensible space requirements;
  - (IV) zoning and site design standards for new residential construction, including the width and placement of surrounding fuel breaks and description of unsafe areas to locate new homes, such as the top of highly dangerous canyons that funnel wildfire heat;
  - (V) specifications for water supplies for firefighting;
  - (VI) requirements for adequate firefighting protection, including requirements for fire stations and equipment;
  - (VII) guidelines for the participation of fire professionals in the development of local fire protection models;
  - (VIII) standards for the protection of roads and bridges;
  - (IX) standards for the egress capacities of roads and bridges;
  - (X) guidelines for the marking of buildings and homes; and
  - (XI) requirements for the replacement of combustible roofing material on existing homes.
- (5) UNDER SECRETARY- The term 'Under Secretary' means the Under Secretary for Federal Emergency Management of the Department of Homeland Security.

### **SEC. 3. ADDITIONAL FIRE MANAGEMENT ASSISTANCE GRANTS FOR FIRE SAFE COMMUNITIES.**

(a) In General- The Under Secretary may reduce the amount of the share of non-Federal funds required by the Fire Management Assistance Grant Program to 10 percent of the grant amount for a municipality at risk if such municipality has adopted a--

- (1) national wildland fire code, standard, or ordinance; or
- (2) local ordinance, standard, or code that requires the retrofit of existing construction that provides for increased protection for the municipality from the threat of wildfire, such as a requirement to replace combustible roofing material used in existing structures.

(b) Rulemaking- Not later than 1 year after the date of the enactment of this Act, the Under Secretary shall publish in the Federal Register a final rule that includes a definition of the term 'local ordinance, standard, or code that requires the retrofit of existing construction that provides for increased protection for the municipality from the threat of wildfire' as used in subsection (a)(2).

(c) Fire Management Assistance Grant Program Defined- In this section, the term 'Fire Management Assistance Grant Program' means the fire management assistance grant program carried out pursuant to section 420 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5187).

### **SEC. 4. GRANTS FOR RESPONSIBLE DEVELOPMENT.**

(a) In General- Subject to the availability of funds for this purpose, the Under Secretary shall award grants to municipalities at risk--

- (1) to encourage responsible development in such municipalities;
- (2) to mitigate the catastrophic effects of fires; and
- (3) to encourage the retrofit of existing wildfire-prone structures.

(b) Use of Funds- Grants awarded under this section may be used as follows:

- (1) To enforce requirements related to hazardous fuel reduction or brush clearing requirements on private land.
- (2) To enforce requirements related to residential construction or the code-inspection of new and existing construction with respect to wildland fire.
- (3) To award subgrants to be used for the replacement of combustible roofs with roofs made of non-combustible roofing material, or for enclosing eaves according to the standards recommended.
- (4) To carry out programs to educate community planners and zoning officials on historic wildfire patterns and fire-resistant community planning.

(c) Maximum Grant Amount- The amount of a grant awarded under this section may not exceed \$1,000,000.

(d) Applications-

(1) IN GENERAL- An application for a grant under this section shall be made at such time and in such manner as the Under Secretary shall require.

(2) MATCHING REQUIREMENT-

(A) IN GENERAL- Subject to subparagraph (B), the Under Secretary shall require that a person awarded a grant under this section for a purpose described in subsection (a) provide non-Federal funds in an amount equal to 25 percent of the amount of such grant for such purpose.

(B) WAIVER- The Under Secretary may waive the requirement of subparagraph (A) in extraordinary circumstances.

(3) REVIEW- Applications for grants under this section shall be reviewed by a panel of individuals who--

- (A)(i) are fire protection experts; or
  - (ii) have significant expertise in fire management, fire policy, community planning, or issues related to a fire hazard area; and
- (B) are appointed by the Under Secretary.

(4) PRIORITY- The panel under paragraph (3) shall give priority to the application for a grant under this section of a municipality at risk that has adopted an ordinance that requires the mandatory replacement of combustible roofing materials on existing structures.

(e) Availability of Funds- A grant awarded under this section shall be expended not later than 3 years after the date the grant is awarded.

(f) Authorization of Appropriations- There is authorized to be appropriated to carry out this section \$25,000,000 for fiscal year 2009 and each fiscal year thereafter.

### **SEC. 5. FOREST SERVICE AND DEPARTMENT OF THE INTERIOR GRANTS.**

Section 10A of the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2106c) is amended--

(1) in subsection (a)--

(A) in the matter preceding paragraph (1)--

(i) by inserting 'and the Secretary of the Interior' after 'The Secretary'; and

(ii) by striking 'State foresters and equivalent State officials' and inserting 'State foresters, equivalent State officials, and

local officials';

(B) in paragraph (3)--

(i) by striking 'trees and forests' and inserting 'trees, forests, and rangelands'; and

(ii) by inserting 'and rangeland' after 'overall forest'; and

(C) in paragraph (4)--

(i) by inserting 'and rangeland' after 'all forest'; and

(ii) by inserting 'and other vegetation' after 'forest cover';

(2) in subsection (b)--

(A) in paragraph (1)--

(i) in subparagraph (C), by striking 'and' at the end;

(ii) in subparagraph (D), by striking 'wildfires.' and inserting 'wildfires; and'; and

(iii) by adding at the end the following new subparagraph:

'(E) to enhance the capacity of local governments to integrate fire-resistant community and home design into local planning, zoning, building codes, property maintenance codes, and brush clearing ordinances.';

(B) by amending paragraph (2) to read as follows:

'(2) ADMINISTRATION AND IMPLEMENTATION- The Program shall be--

'(A) administered by the Chief of the Forest Service and the Secretary of the Interior; and

'(B) implemented through State foresters or equivalent State officials.';

(C) in paragraph (3)--

(i) in the matter preceding subparagraph (A), by striking 'Secretary,' and inserting 'Secretary and the Secretary of the Interior,';

(ii) by redesignating subparagraphs (F), (G), and (H) as subparagraphs (G), (H), and (I), respectively; and

(iii) by inserting after subparagraph (E) the following:

'(F) programs to build the capacity of local governments to design and maintain fire-resistant communities.';

(D) in paragraph (4), by inserting 'or the Secretary of the Interior' after 'by the Secretary'; and

(E) in paragraph (5), by inserting 'and the Secretary of the Interior' after 'The Secretary';

(3) by redesignating subsections (c) and (d) as subsections (d) and (e), respectively;

(4) by inserting after subsection (b), the following new subsection (c):

'(c) Pilot Program for Fire Safe Communities To Coordinate Across Jurisdictional Boundaries-

'(1) AUTHORITY- The Secretary and the Secretary of the Interior may carry out a pilot program to assess the feasibility and advisability of awarding grants to fire safe communities located near Federal land to assist in Federal efforts to prevent and manage fires.

'(2) USE OF GRANT FUNDS- A grant awarded under the pilot program may be used as follows:

'(A) To implement or enforce local ordinances consistent with a nationally recognized wildland fire code, standard, or ordinance.

'(B) To complete cooperative fire agreements that articulate the roles and responsibilities for Federal, State, and local government entities in local wildfire suppression and protection.

'(C) To develop or implement community wildfire protection plans to better focus resources to address priority areas for hazardous fuels reduction projects.

'(D) To expand education programs to raise the awareness of homeowners and citizens of wildland fire protection practices.

'(E) To implement training programs for firefighters on wildland firefighting techniques and mitigation strategies.

'(F) To acquire equipment to facilitate wildland fire preparedness and mitigation.

'(3) MATCHING REQUIREMENT-

'(A) IN GENERAL- Subject to subparagraph (B), a person awarded a grant under the pilot program to assist in Federal efforts to prevent and manage fires shall provide non-Federal funds in an amount equal to 25 percent of the amount of such grant for such purpose.

'(B) WAIVER- The Secretary or the Secretary of the Interior may waive the requirements of subparagraph (A) in extraordinary circumstances.

'(4) FIRE SAFE COMMUNITY DEFINED- In this subsection, the term 'fire safe community' has the meaning given that term in section 2 of the Fire Safe Communities Act of 2009.';

(5) in subsection (d), as redesignated by paragraph (3), by inserting 'and the Secretary of the Interior' after 'section, the Secretary'; and

(6) in subsection (e), as redesignated by paragraph (3)--

(A) in the matter preceding paragraph (1), by striking 'to the Secretary';

(B) in paragraph (1), by striking 'and' at the end; and

(C) by striking paragraph (2) and inserting the following:

'(2) to the Secretary--

'(A) \$35,000,000 for each of fiscal years 2009 through 2013; and

'(B) such sums as are necessary for each fiscal year thereafter; and

'(3) to the Secretary of the Interior--

(A) \$15,000,000 for each of fiscal years 2009 through 2013; and  
(B) such sums as are necessary for each fiscal year thereafter.