

## AGENDA

### UNIFORM BUILDING CODE COMMISSION

**Wednesday, June 10, 2015**

**9:00 AM**

**Sandy City Hall, 10000 Centennial Pkwy Sandy, UT  
Room 201**

*This agenda is subject to change up to 24 hours prior to the meeting.*

#### **Administrative Business:**

Call meeting to order

Sign per diem sheet

#### **Discussion Items:**

1. Swear in new member
2. Approve minutes from November 12, 2014 meeting
3. Review recommendations from the advisory committees for the 2015 codes
4. Advisory Committee reports -
  - a. Architectural Advisory Committee – 7-1-14 to 5-5-15
  - b. Education Advisory Committee – 1-20-15 to 4-21-15
  - c. Electrical Advisory Committee – 7-10-14 to 4-9-15
  - d. Unified Code Analysis Council – same as Architectural Advisory
  - e. International Mechanical Advisory Committee – 9-9-14 to 5-12-15
  - f. Plumbing /Health Advisory Committee – 8-7-14 to 5-7-15
  - g. Structural Advisory Committee – 8-7-14 to 5-7-15
5. Info Items
  - a. IBC Amendment status log
  - b. IRC Amendment status log
  - c. IPC Amendment status log
  - d. IECC Amendment status log
  - e. NEC Amendment status log
  - f. IEBC Amendment status log
  - g. Education Committee Combined Balance & Income Sheet

**Next Scheduled Meeting:** July 8, 2015

Please call Sharon at 530-6163, email at [ssmalley@utah.gov](mailto:ssmalley@utah.gov) or [dansjones@utah.gov](mailto:dansjones@utah.gov) if you do not plan on attending the meeting.



In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Dave Taylor, ADA Coordinator, at least three working days prior to the meeting. Division of Occupational and Professional Licensing, 160 East 300 South, Salt Lake City UT 84115, 801-530-6628 or toll-free in Utah only 866-275-3675.

**MINUTES**  
**UTAH**  
**UNIFORM BUILDING CODE COMMISSION**

**November 12, 2014**

**Room 201 - 9:00 AM**  
**Sandy City Hall**  
**Sandy, UT**

**CONVENED:** 9:11 AM

**ADJOURNED:** 9:55 AM

**Bureau Manager:**  
**Commission Secretary:**

Dan Jones  
Ann Naegelin

**Commission Members Present**

Justin Naser, Chair  
Casey Vorwaller  
Patrick Tomasino  
Ron McArthur  
Richard Butz

**Commission Members Absent**

Bryant Pankratz  
Chris Joyal  
Christopher Jensen  
Alex Butwinski  
Kevin Bell

**Guests:**

Scott Marsell, Sandy City  
Ross Ford, UHBA  
Paul Hayward, Farmington City  
Jim McClintic, Sandy City

**DOPL Staff Present:**

**TOPICS FOR DISCUSSION**

**DECISIONS AND RECOMMENDATIONS**

**ADMINISTRATIVE BUSINESS:**

Swear in New Commission Member

Ron McArthur was introduced and sworn in.

Approval of Minutes

The minutes will be approved at the next meeting because a quorum was not present.

**DISCUSSION ITEMS:**

Consider modifying recommendation to the

Mr. Jones advised the Commission Farmington City

Business and Labor Interim Committee

has requested to remove their local amendments for fire sprinklers.

The Electrical Advisory Committee met and requested Gary Beckstrand attend the Business and Labor Committee to answer questions from the Committee.

**ADJOURN:**

9:55 AM

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

\_\_\_\_\_  
Date Approved

\_\_\_\_\_  
Chairperson, Uniform Building Code Commission

\_\_\_\_\_  
Date Approved

\_\_\_\_\_  
Bureau Manager, Division of Occupational & Professional Licensing

UNIFORM BUILDING CODE COMMISSION  
ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

July 1, 2014  
Sandy City Hall Room 341  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Dan S. Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

|                         |                         |
|-------------------------|-------------------------|
| William Hall            | Chris Jensen            |
| Ron McArthur (absent)   | Kenny Nichols           |
| Scott Marsell (excused) | Gary Payne (excused)    |
| Jerry Jensen            | James Sullivan (absent) |

UNIFIED CODE ANALYSIS COUNCIL

|                        |                          |
|------------------------|--------------------------|
| Martha Ellis           | Paul Bauer               |
| Mike Pedersen (absent) | James Williams           |
| Jeff Darr              | Deanne Mousley (excused) |
| Scott Adams            | Andrew Baxter (excused)  |
| Kevin Bell             | Dave Vickers (absent)    |

VISITORS:

SWEAR IN NEW MEMBERS OF THE  
UNIFIED CODE ANALYSIS COUNCIL

Dan Jones administered the oath of office to the two new members this committee.

MINUTES

A motion was made by Kenny Nichols to approve the minutes as corrected. The motion was seconded by Jeff Darr and passed unanimously.

PLAN REVIEW OF 2015 CODES

Dan Jones gave an overview of the process for the review of the 2015 codes and the existing amendments. He informed the committees that this review needs to be completed and to the Commission by July 2015.

Those present volunteered for the various chapters in the 2015 IBC that they would be willing to review. Volunteering for review of the 2015 IRC will be discussed at a later date.

The committees discussed the positions that are open on the two committees.

The meeting adjourned at 9:48.

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UNIFORM BUILDING CODE COMMISSION  
ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

August 5, 2014  
Sandy City Hall Room 341  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Dan S. Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

|                       |                        |
|-----------------------|------------------------|
| William Hall          | Chris Jensen (excused) |
| Ron McArthur          | Kenny Nichols          |
| Scott Marsell         | Gary Payne             |
| Jerry Jensen (absent) | James Sullivan         |

UNIFIED CODE ANALYSIS COUNCIL

|                         |                         |
|-------------------------|-------------------------|
| Martha Ellis            | Paul Bauer (excused)    |
| Mike Pedersen (excused) | Thomas Peterson         |
| Jeff Darr (excused)     | Deanne Mousley          |
| Scott Adams             | Andrew Baxter (excused) |
| Kevin Bell              | Dave Vickers (absent)   |

VISITORS:

SWEAR IN NEW MEMBER

Dan Jones administered the oath of office to Thomas Peterson, the new member for the Unified Code Analysis Council.

MINUTES

A motion was made by Scott Marsell to approve the minutes from the July 1, 2014 joint meeting as written. The motion was seconded by Kenny Nichols and passed unanimously.

REVIEW 2015 IBC AND CURRENT AMENDMENTS

Scott Adams passed out a document for his review of Chapters 1 through 3. Those present reviewed his recommendations. During the discussion on his recommendation for the current amendment for section 110, it was decided to change the section number in (2)(a) to 110.3.5.1 and delete (b), however no motion was made.

Those present agreed with his recommendation to modify the current amendment for Section 115.1 by adding the words "issue a" and "order". No motion was made.

Scott Marsell pointed out that Section 101.4.7 needs to be reviewed in connection with the IEBC as Chapter 34 has been deleted from the 2015 IBC which dealt with existing buildings. Scott Marsell, Scott Adams, Kenny Nichols and Thomas Peterson will do the review.

Kenny Nichols, Chris Jensen & William Hall will review Section 107.3.4.

William Hall will look at current amendments 10 through 26 to make sure they are in line with the requirements of the Department of Health.

Thomas Peterson will review Chapters 13 through 16.

At the next meeting chapters 4 through 6 will be reviewed.

The meeting adjourned at 10:13.

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UNIFORM BUILDING CODE COMMISSION  
ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

September 2, 2014  
Sandy City Hall Room 341  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

|                       |                      |
|-----------------------|----------------------|
| William Hall          | Chris Jensen         |
| Ron McArthur (absent) | Kenny Nichols        |
| Scott Marsell         | Gary Payne (excused) |
| Jerry Jensen          | James Sullivan       |

UNIFIED CODE ANALYSIS COUNCIL

|                         |                         |
|-------------------------|-------------------------|
| Martha Ellis            | Paul Bauer (excused)    |
| Mike Pedersen (excused) | Thomas Peterson         |
| Jeff Darr (excused)     | Deanne Mousley          |
| Scott Adams             | Andrew Baxter (excused) |
| Kevin Bell (absent)     | Dave Vickers            |

VISITORS:

MINUTES

A motion was made by Martha Ellis to approve the minutes from the August 5, 2014 joint meeting as written. The motion was seconded by Kenny Nichols and passed unanimously.

COMPLETE REVIEW OF CHAPTER 3  
AMENDMENTS

Those present reviewed the current amendments for the IBC. During the discussion on Chapters 1 through 4, the following recommendations were made.

A motion was made by Thomas Peterson to keep the current amendment for Section 106. The motion was seconded by Scott Marsell and passed unanimously.

A motion was made by Martha Ellis to modify the current amendment for Section 110 by deleting the amendment for (2)(b) and changing the new section

number in (2)(a) to 110.3.5.1. The motion was seconded by Kenny Nichols and passed unanimously.

A motion was made by Kenney Nichols to modify the current amendment for Section 115.1 by adding the words "issue a" before the word "stop" and the word "order" after the word "stop". The motion was seconded by Scott Marsell and passed unanimously.

A recommendation for the current amendments 4-9 in Section 202 and the current amendments for Chapters 3 and 4 was tabled until William Hall can finish the review with the Department of Health.

Deanna Mousley pointed out that Table 307.1 may need to have an amendment so that it correlates with the Fire Code. She will report further at the next meeting.

Kenny Nichols reported on his review of Section 107.3.4 and found the new wording to be acceptable.

The committees reviewed the current amendment for Section 403.5.5. Thomas Peterson made a motion to keep the current amendment. There was no second for the motion and it was decided to re-viewed this amendment again in connection with Chapter 10.

A motion was made by Martha Ellis to keep the current amendment for Section (F)406.5.8. The motion was seconded by Deanna Mousley and passed unanimously.

A motion was made by Kenny Nichols to keep the current amendment for Section 406.5.8.1. The motion was seconded by Chris Jensen and passed unanimously.

Dave Vickers spoke to the committees in connection with the fighting of wildland fires. He reported

that the Department of Natural Resources is considering the adoption of a statewide code. He asked for volunteers from these committees to help him in reviewing the International Wildland-Urban Interface Code. Martha Ellis and Scott Marsell volunteered to help with the review.

The committees discussed the current requirements in 15A-1-204(7)(a).

At the meeting in October, there will be a final review of chapters 4 through 6 and then start the review of chapters 7 through 9.

The meeting adjourned at 10:36.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

UNIFORM BUILDING CODE COMMISSION  
ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

October 7, 2014  
Sandy City Hall Room 201  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

|               |                |
|---------------|----------------|
| William Hall  | Chris Jensen   |
| Ron McArthur  | Kenny Nichols  |
| Scott Marsell | Gary Payne     |
| Jerry Jensen  | James Sullivan |

UNIFIED CODE ANALYSIS COUNCIL

|                           |                         |
|---------------------------|-------------------------|
| Martha Ellis (excused)    | Paul Bauer              |
| Mike Pedersen (excused)   | Thomas Peterson         |
| Jeff Darr                 | Deanne Mousley          |
| Scott Adams               | Andrew Baxter (excused) |
| Casey Vorwaller (excused) | Dave Vickers            |
| James Williams            |                         |

VISITORS:

Mark Burton, Utah State Fire Marshal's Office

MINUTES

A motion was made by James Sullivan to approve the minutes from the September 2, 2014 joint meeting as written. The motion was seconded by Chris Jensen and passed unanimously.

REPORT ON TABLE 307.1

Deanne Mousley gave her report on her review of Table 307.1. Her recommendation is that a new amendment be added that will add footnote d to the consumer fireworks row in the column for storage - solid pounds. Following the discussion on the recommendation, a motion was made by Deanne Mousley to approve the addition of a new amendment. The motion was seconded by William Hall and passed unanimously.

COMPLETE REVIEW OF CHAPTER 3

Those present reviewed the current amendments for

THROUGH 6 AND CURRENT AMENDMENTS

the IBC that had been tabled at previous meetings. The following recommendations were made.

A motion was made by William Hall to keep the current amendments in 15A-3-102 numbers (4) through (9). The motion was seconded by Scott Marsell and passed unanimously.

The committees discussed the possibility of modifying the wording in 15A-3-102 (10) to say where three or fewer. The recommendation was tabled until further review could be completed.

A motion was made by William Hall to keep the current amendments in 15A-3-102 numbers (11) through (16). The motion was seconded by Scott Marsell and passed unanimously.

A motion was made by William Hall to modify the current amendment in 15A-3-102 (17) by changing the section number from 308.3.1 to 308.3.4. The motion was seconded by Ron McArthur and passed unanimously.

A recommendation on the current amendment for Section 308.4 was tabled.

A motion was made by William Hall to modify the current amendment for Section 308.4.1 by changing the section number to 308.4.2. The motion was seconded by Chris Jensen and passed unanimously.

A motion was made by William Hall to add a new amendment for Section 308.2 that would delete the word "FOSTER" and replace it with the word "CHILD". The motion was seconded by Scott Marsell and passed unanimously.

A motion was made by William Hall to keep the current amendments in 15A-3-102 numbers (20), (23), and (26). The motion was seconded by Scott Marsell and passed unanimously.

A motion was made by William Hall to modify the

current amendments in 15A-3-102 numbers (21), (22), and (24) by changing Section 425 to Section 427. The motion was seconded by Scott Marsell and passed unanimously.

A motion was made by William Hall to modify the current amendment in 15A-3-102 number (25) by changing the section number from to 310.5.2 to 310.5.3 in both places and changing Section 425 to Section 427. The motion was seconded by Scott Marsell and passed unanimously.

At this point Chris Jensen left the meeting.

William Hall ask that the meeting be turned over to Mark Burton and to jump over to the current amendment for Section 504.2. Mr. Burton spoke to the committees in connection with this current amendment. Following the discussion, a motion was made by William Hall to modify the current amendment by deleting the words "Notwithstanding the exceptions to Section 504.2", and change the wording between the word "allowed" and "of" to read "on each level of a two story building" and to also change the section number to 504.4.1. The motion was seconded by Scott Marsell and passed unanimously.

At this point James Sullivan left the meeting.

The recommendation for Section 403.5.5 will be made during the review of chapter 10.

A recommendation for Section 422.2 was tabled.

During the review of the current amendment for 15A-3-103 number (5), it was pointed out that all of the section numbers need to be changed from 425 to 427. Deanne Mousley volunteered to check all of the references in this section and report back at the next meeting.

Scott Marsell asked the committees to look at the new carbon monoxide section in Chapter 9 for the

next meeting.

At the next meeting, there will be completion of the review of all sections that the recommendations were tabled, a review of chapters 5-8, and if time permits, start the review of Chapter 9.

The meeting adjourned at 10:42.

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UNIFORM BUILDING CODE COMMISSION  
ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

November 4, 2014  
Sandy City Hall Room 341  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

|                        |                        |
|------------------------|------------------------|
| William Hall           | Chris Jensen (excused) |
| Ron McArthur           | Kenny Nichols          |
| Scott Marsell          | Gary Payne             |
| Jerry Jensen (excused) | James Sullivan         |

UNIFIED CODE ANALYSIS COUNCIL

|                       |                         |
|-----------------------|-------------------------|
| Paul Bauer            | Mike Pedersen (excused) |
| Thomas Peterson       | Casey Vorwaller         |
| Jeff Darr             | Deanne Mousley          |
| Scott Adams (excused) | Andrew Baxter (excused) |
| Dave Vickers          | James Williams          |

VISITORS:

|                                     |                              |
|-------------------------------------|------------------------------|
| Paul Hayward, Farmington City       | Guido Smith, Farmington City |
| Brad Larson, Unified Fire Authority | Jim McClintic, Sandy City    |
| David Peterson, Farmington City     | Eric Miller, Farmington City |

MINUTES

A motion was made by Kenny Nichols to approve the minutes from the October 7, 2014 joint meeting as written. The motion was seconded by Jeff Darr and passed unanimously.

DISCUSS ADDITIONAL INFORMATION  
FOR FARMINGTON CITY LOCAL  
AMENDMENT

Dan Jones gave a report on the request from the Business and Labor Interim Committee in connection with the local amendment for Farmington City. Paul Hayward spoke to those present in connection with the local amendment for Farmington City. Farmington City submitted a request to amend their proposal and to substitute their prior request with a new request to fully delete the local amendment for Farmington City in 15A-4-103 and 15A-4-203.

Following a discussion on the new request, a motion was made by Thomas Peterson to approve Farmington City's request to delete the local amendment in 15A-4-103 and 15A-4-203. This motion does not affect any other jurisdictions local amendments. The motion was seconded by Kenny Nichols and passed unanimously.

### COMPLETE REVIEW OF CHAPTER 3 THROUGH 6 AND CURRENT AMEND- MENTS

The current amendments were reviewed and the following recommendations were made.

Those present discussed the current amendment for Section 304.1. Following the review, a motion was made by Ron McArthur to delete the current amendment 15A-3-102(10). The motion was seconded by Thomas Peterson and passed unanimously.

A motion was made by Thomas Peterson to modify the current amendment for Section 308.4 by deleting (d). The motion was seconded by James Williams and passed unanimously.

The recommendation for Section 403.5.5 was tabled and will be reviewed with Chapter 10.

A motion was made by Casey Vorwaller to modify the current amendment for Section 422.2 by changing the word "barrier" to "partition". The motion was seconded by Ron McArthur and passed with a vote of twelve in favor and William Hall voting in opposition.

Deanne Mousley gave her report on the referenced IFC sections in the current amendment for Section 425. Following the review, a motion was made by Deanne Mousley to change Section 1029 to 1030, Section 1009 to 1011, Section 1010 to 1012 and Section 1026 to 1027. The motion was seconded by James William and passed unanimously.

A motion was made by Deanne Mousley to modify the current amendment for Section 504.2 by changing Section 1008.1.9.3 to 1010.1.9.3. The motion

was seconded by William Hall and passed unanimously.

A motion was made by Jeff Darr to keep the current amendments for Sections (F)901.8, (F)903.2.2, (F)903.2.4, and (F)903.2.7. The motion was seconded by Deanne Mousley and passed unanimously.

A motion was made by Thomas Peterson to modify the current amendments for Section 904.11 by changing the section number to 904.12. The motion was seconded by Deanne Mousley and passed unanimously.

The recommendation for the section on carbon monoxide was tabled until the next meeting. Deanne Mousley will draft an amendment for the committees to review at the next meeting.

A motion was made by Thomas Peterson to keep the current amendment for Section (F)903.2.9. The motion was seconded by Jeff Darr and passed unanimously.

The meeting adjourned at 11:12.

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UNIFORM BUILDING CODE COMMISSION  
ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

December 2, 2014  
Sandy City Hall Room 201  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

|               |                |
|---------------|----------------|
| William Hall  | Chris Jensen   |
| Ron McArthur  | Kenny Nichols  |
| Scott Marsell | Gary Payne     |
| Jerry Jensen  | James Sullivan |

UNIFIED CODE ANALYSIS COUNCIL

|                         |                         |
|-------------------------|-------------------------|
| Paul Bauer              |                         |
| Mike Pedersen (excused) | Thomas Peterson         |
| Jeff Darr (excused)     | Deanne Mousley          |
| Scott Adams             | Andrew Baxter (excused) |
| Casey Vorwaller         | Dave Vickers            |

VISITORS:

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| Rep Fred Cox                         | Amy Coombs, Lobbyist Ideal          |
| David Eager, UDOH/HFLC               | Cory R Solum AIA                    |
| Jim McClintic, Sandy City            | Brad Larson, Unified Fire Authority |
| Rick Conger, Canyons School District |                                     |

MINUTES

A motion was made by James Sullivan to approve the minutes from the November 4, 2014 joint meeting as written. The motion was seconded by William Hall and passed unanimously.

DISCUSSION WITH REP FRED COX

- a. ANSI A117.1 vs ADAAG
- b. INTERIOR DESIGNERS
- c. BUILDING OFFICIALS/  
INSPECTORS INSPECTING  
THEIR OWN JURISDICTIONS  
BUILDINGS

Those present had a discussion on these three topics. Rep Cox spoke to the group and asked for their input on these topics. Dan Jones explained that the Unified Code Analysis Council was formed in order to resolve code differences between the different state agencies. David Eager spoke on behalf of the Department of Health.

The committees agreed that the remaining agenda items will be discussed at the next meeting and the next meeting will be held in February.

Scott Marsell asked the committee members to review a proposal that he put together for carbon monoxide detection and asked that give him their input at the meeting in February.

The meeting adjourned at 10:57.

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UNIFORM BUILDING CODE COMMISSION  
ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

February 3, 2015  
Sandy City Hall Room 341  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

|                         |                |
|-------------------------|----------------|
| William Hall            | Chris Jensen   |
| Tracy Ence (excused)    | Kenny Nichols  |
| Scott Marsell (excused) | Gary Payne     |
| Jerry Jensen            | James Sullivan |

UNIFIED CODE ANALYSIS COUNCIL

|                 |                         |
|-----------------|-------------------------|
| Paul Bauer      | James Williams          |
| Thomas Peterson | Brad Larson             |
| Jeff Darr       | Deanne Mousley          |
| Scott Adams     | Andrew Baxter (excused) |
| Casey Vorwaller | Dave Vickers            |

VISITORS:

|                                    |                                  |
|------------------------------------|----------------------------------|
| Wendy Johnson, Midway City         | Jim McClintic, Sandy City        |
| Kevin Emerson, Utah Clean Energy   | Eric Miller, Farmington City     |
| Clint Neering, Wasatch County Fire | Ernie Giles, Wasatch County Fire |

SWEAR IN NEW MEMBER

Brad Larson was sworn in as the new member for the Unified Code Analysis Council.

MINUTES

A motion was made by James Sullivan to approve the minutes from the December 2, 2014 joint meeting as written. The motion was seconded by Kenny Nichols and passed unanimously.

REVIEW PROPOSED AMENDMENT TO SECTION (F)908.7

Deanne Mousley gave an overview of the proposal that Scott Marsell drafted for this section of the IBC and IFB. Following the review and discussion on the proposal, a motion was made by Tom Peterson to approve the proposal as presented. The motion was seconded by Gary Payne. During discus-

sion on the motion, it was pointed out that the section number needed to be changed to 915. The first and seconded agreed with the modification and the motion passed unanimously.

#### REVIEW PROPOSAL FOR WASATCH COUNTY FIRE DISTRICT

Clint Neering spoke to the committees in connection with the proposal for a local amendment for Wasatch County Fire District. During the discussion on the proposal, Jeff Darr pointed out several changes that might need to be made in order to clarify the proposal. A motion was made by Chris Jensen to table the recommendation until the next meeting. The motion was seconded by Kenny Nichols and passed unanimously. Scott Adams and Jeff Darr will meet with Wasatch County Fire District to make the changes for review at the next meeting.

#### COMPLETE REVIEW OF CHAPTER 9 OF THE 2015 IBC AND CURRENT AMENDMENTS

Those present reviewed the remainder of Chapter 9 and the following recommendations were made.

Deanne Mousley, Jeff Darr, and Brad Larson will review Section (F) 903.2.8 and report back at the next meeting.

A motion was made by Deanne Mousley to modify the current amendment for Section (F) 907.2.3 by keeping the amendment, modify (a) and deleting (b). The motion was seconded by Chris Jensen and passed unanimously.

A motion was made by Tom Peterson to delete the current amendments for Section 908.7, numbers 10, 11, and 12, and replace them with the new amendment for Section 915 that was previously approved. The motion was seconded by Chris Jensen and passed unanimously.

The final recommendation for Chapter 9 will be made after the State Fire Marshal's Office has had a chance to complete their review.

#### REVIEW CHAPTERS 10 TO 14

The following recommendations were made during the review of Chapter 10.

A motion was made by Brad Larson to modify the current amendment for Section 1008.1.9.6 by changing the section number 1010.1.9.6, deleting the words from "the words" up to the words "a new", and changing the number 8 to 9. The motion was seconded by Jeff Darr and passed unanimously.

A recommendation for Section 1008.1.9.7 was made to change the section number to 1010.1.9.7 and number 7 to number 9. A decision on the wording was tabled until the next meeting.

Tom Peterson left at this point in the meeting.

A motion was made by Kenny Nichols to modify the current amendment for Section 1009.7.2 by changing it to 1011.5.2 and exception number 5 to number 3. The motion was seconded by Jeff Darr and passed unanimously.

A motion was made by Chris Jensen to modify the current amendment for Section 1009.15 by changing the section number to 1011.11 and exception 6 to exception 5. The motion was seconded by Kenny Nichols and passed unanimously.

A motion was made by Dave Vickers to modify the current amendment for Section 1011.5 by changing the section number to 1013.5. The motion was seconded by Brad Larson and passed unanimously.

A motion was made by James Sullivan to modify the current amendment for Section 1024 by changing the section to 1025. The motion was seconded by Gary Payne and passed with a vote of eleven in favor and James Williams, Jeff Darr and Paul Bauer voting in opposition.

A motion was made by James Sullivan to keep the current amendment for Section 403.5.5. The motion was seconded by Kenny Nichols and passed with a vote of eleven in favor and James Williams,

Jeff Darr and Paul Bauer voting in opposition.

At this point in the meeting Dave Vickers left.

A recommendation for the current amendment for 1028.12 was made to change the section number to 1029.14. A decision on the wording was tabled until the next meeting.

Kevin Emerson spoke to the committees in connection with the review of the energy code. A copy of the reports by Envision Utah and the Utah Energy Efficiency & Conservation Plan will be sent to both committees.

The meeting adjourned at 11:10.

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UNIFORM BUILDING CODE COMMISSION  
ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

March 3, 2015  
Sandy City Hall Room 341  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

|                         |                      |
|-------------------------|----------------------|
| William Hall            | Chris Jensen         |
| Tracy Ence (excused)    | Kenny Nichols        |
| Scott Marsell (excused) | Gary Payne (excused) |
| Jerry Jensen (absent)   | James Sullivan       |

UNIFIED CODE ANALYSIS COUNCIL

|                           |                         |
|---------------------------|-------------------------|
| Paul Bauer (excused)      | James Williams          |
| Thomas Peterson (absent)  | Brad Larson (excused)   |
| Jeff Darr (excused)       | Deanne Mousley          |
| Scott Adams               | Andrew Baxter (excused) |
| Casey Vorwaller (excused) | Dave Vickers            |

VISITORS:

Mitch Richardson, Survey & Testing Services

SWEAR IN NEW MEMBER

Tracy Ence was not present to be sworn in.

MINUTES

Approval of the February 3, 2015 minutes was tabled until the next meeting as there was not a quorum present for either committee.

REVIEW SECTION (F) 903.2.8

Those present reviewed the current amendment for this section. Deanne Mousley gave a review of this section. Her recommendation is to modify the current amendment by adding the deletion of (F)903.2.8.4 and to renumber (F)903.2.8.3. This will be reviewed at the next meeting.

COMPLETE REVIEW OF CHAPTER 9 OF  
THE 2015 IBC AND CURRENT  
AMENDMENTS

Deanne Mousley gave a report on her review of the rest of Chapter 9. It was recommended that an amendment be added for Section 905.3.9 and

905.8. This will be reviewed at the next meeting.

#### REVIEW CHAPTERS 10 THROUGH 15

Those present discussed the current amendment for Section 1008.1.9.7. They are recommending that the amendment be deleted. This will be covered at the next meeting.

The current amendment for Section 1028.12 was discussed. A recommendation will be made at the next meeting to keep the current amendment.

A recommendation will be made at the next meeting to keep the current amendment for Sections 1109.8 and 1208.4.

Those present asked that the Structural Advisory Committee also review Chapter 15.

The meeting adjourned at 11:07.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

UNIFORM BUILDING CODE COMMISSION

ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

April 7, 2015  
Sandy City Hall Room 201  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Dan Jones, Bureau Manager

Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

William Hall

Tracy Ence

Scott Marsell

Jerry Jensen

Chris Jensen

Kenny Nichols (excused)

Gary Payne

James Sullivan

UNIFIED CODE ANALYSIS COUNCIL

Paul Bauer (excused)

Thomas Peterson (excused)

Jeff Darr

Scott Adams (excused)

Casey Vorwaller

Brad Larson

Deanne Mousley (excused)

Andrew Baxter (excused)

Dave Vickers

VISITORS:

Jim McClintic, Sandy City

SWEAR IN NEW MEMBER

Dan Jones administered the oath of office to Tracy Ence, the new member for the Architectural Advisory Committee.

MINUTES

A motion was made by William Hall to approve the minutes for the February 3rd and March 3rd, 2015 meetings. The motion was seconded by Jerry Jensen and passed unanimously.

Approval of the Unified Code Analysis Council minutes was tabled until the next meeting as there was not a quorum present.

REVIEW SECTION (F) 903.2.8

The recommendation for this section was tabled until the next meeting.

Jim McClintic spoke to the committees in connection with a change that has been made to the 2015 IBC for Incidental Uses Specific to Ambulatory Care Facilities. Following a discuss, it was decided to review this at the next meeting. William Hall will do some research for the next meeting.

Gary Payne joined the meeting at this point.

COMPLETE REVIEW OF CHAPTER 9 OF  
THE 2015 IBC AND CURRENT  
AMENDMENTS

The recommendation for amendments to Section 905.3.9 and Section 905.8 was tabled until the next meeting.

REVIEW CHAPTERS 10 THROUGH 15

The committees reviewed the current amendment for Section 1028.12. The section number needs to be renumbered to 1029.14. Following the discussion, a motion was made by William Hall to keep the current amendment as modified. The motion was seconded by Chris Jensen and passed unanimously.

A motion was made by James Sullivan to keep the current amendment to Section 1109.8 and modify the word "lift" to "lifts". The motion was seconded by William Hall and passed unanimously.

A motion was made by James Sullivan to keep the current amendment to Section 1208.4. The motion was seconded by Chris Jensen and passed unanimously.

A recommendation for the amendments to Chapter 15 was tabled until the next meeting.

James Sullivan gave his review of Chapter 29. A motion was made by James Sullivan to keep the current amendment to Section (P) Table 2902.1 and approve the chapter as modified unless the Plumbing Advisory Committee has other recommendations. The motion was seconded by Tracy Ence and passed unanimously.

START REVIEW OF THE 2015 IRC AND  
CURRENT AMENDMENTS

Chapters 1-5 of the IRC will be reviewed at the next meeting.

The meeting adjourned at 10:25.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

UNIFORM BUILDING CODE COMMISSION  
ARCHITECTURAL ADVISORY COMMITTEE  
UNIFIED CODE ANALYSIS COUNCIL

May 5, 2015  
Sandy City Hall Room 341  
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ARCHITECTURAL ADVISORY COMMITTEE

|                       |                         |
|-----------------------|-------------------------|
| William Hall          | Chris Jensen            |
| Tracy Ence (excused)  | Kenny Nichols           |
| Scott Marsell         | Gary Payne              |
| Jerry Jensen (absent) | James Sullivan (absent) |

UNIFIED CODE ANALYSIS COUNCIL

|                      |                         |
|----------------------|-------------------------|
| Paul Bauer (excused) |                         |
| Thomas Peterson      | Brad Larson (excused)   |
| Jeff Darr (excused)  | Deanne Mousley          |
| Scott Adams          | Andrew Baxter (excused) |
| Casey Vorwaller      | Dave Vickers (absent)   |

VISITORS:

|                                  |                            |
|----------------------------------|----------------------------|
| Kevin Emerson, Utah Clean Energy | Dave Brems, Architect/CAAT |
| Jim McClintic, Sandy City        |                            |

MINUTES

Approval of the minutes for the February 3, March 3, and April 7, 2015 meetings was deferred until the next meeting as there was not a quorum present for the Unified Code Analysis Council.

A motion was made by Kenny Nichols to approve the minutes from the April 7, 2015 meeting for the Architectural Advisory Committee. The motion was seconded by Chris Jensen and passed unanimously.

Dave Brems spoke to the committees in connection with the importance of adopting the 2015 IECC. He was asked to come to the Commission meeting

REVIEW SECTION (F)903.2.8

in June to make his presentation.

Deanne Mousley presented a recommendation for this section that would modify the current amendment. Following the discussion, a motion was made by Deanne Mousley to modify the current amendment as presented. The motion was seconded by Scott Marsell and passed unanimously.

REVIEW SECTION (F)905.3.9 AND SECTION (F)905.8

Following the review of these sections, a recommendation was made to delete the current amendments for Sections (F)406.5.8 and (F)406.5.8.1 and add two new amendments for (F)905.3.9 and (F)905.8. A motion was made by Deanne Mousley to approve this change. The motion was seconded by Tom Peterson and passed unanimously.

COMPLETE REVIEW OF CHAPTER 9 OF THE 2015 IBC AND CURRENT AMENDMENTS

No other recommendations were made for this chapter.

The committees reviewed the current amendment for Section 1008.1.9.7. Following the discussion, a motion was made by Scott Marsell to delete the current amendment. The motion was seconded by Kenny Nichols and passed unanimously.

REVIEW TABLE 509 INCIDENTAL USES SPECIFIC TO AMBULATORY CARE FACILITIES

The committees reviewed this section and no recommendations were made.

REVIEW CHAPTER 15

Following the discussion on this chapter, a motion was made by Tom Peterson to delete all four current amendments. The motion was seconded by Scott Marsell and passed unanimously.

REVIEW CHAPTERS 1-5 OF THE 2015 IRC AND CURRENT AMENDMENTS

The committees reviewed these chapters along with the current amendments and the following recommendations were made:

A motion was made by Chris Jensen to delete the current amendments for Sections R302.2 and R302.2.4. The motion was seconded by Kenny Nichols and passed unanimously.

A motion was made by Chris Jensen to keep the current amendments for R301.2(5) and R301.6. The motion was seconded by Casey Vorwaller and passed unanimously.

A motion was made by Scott Marsell to keep the current amendment for Section R303.4 and modify Section R311.7. The motion was seconded by Chris Jensen and passed unanimously.

A motion was made by Scott Marsell to delete the current amendment for Section R312.1.2. The motion was seconded by Chris Jensen and passed unanimously.

A motion was made by Scott Marsell to keep the current amendment for Section R312.2. The motion was seconded by Chris Jensen and passed unanimously.

A motion was made by Scott Marsell to modify the current amendment for Section R313.1 by adding the words "or NFPA 13D". The motion was seconded by Chris Jensen.

A motion was made by Scott Marsell to keep the current amendment for Section R404.1. The motion was seconded by Chris Jensen and passed unanimously.

A motion was made by Scott Marsell to delete the current amendment for Section R501.3. The motion was seconded by Chris Jensen and passed unanimously.

The meeting adjourned at 11:07.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

**MINUTES**

**UTAH  
UBCC EDUCATION ADVISORY COMMITTEE  
MEETING  
January 20, 2015**

**Room 475 Fourth Floor – 1:00 p.m.  
Heber M. Wells Building  
Salt Lake City, UT 84111**

**CONVENED: 1:00 pm**

**ADJOURNED: 2:15 pm**

**Construction CE Manager:** Robyn Barkdull

**Board Secretary:** Boyce Barnes

**Division Director:** Mark Steinagel (excused)

**Committee Members Present:** Rob Allen  
John Chase  
Kathy LeMay (Acting Chairperson)  
Jennifer Saunders  
Patrick Tomasino  
Kevin Phillips

**Committee Members Absent:** Craig Browne  
Shane Honey  
Jim Thomas

**DOPL Employees Present:** Ray Walker – Regulatory Compliance Officer

**Guests:** Carey Maedgen – Utah Chapter of ICC  
Todd Laker – Intermountain Chapter ACI  
Chris Kimball – SEAU and Bonneville Chapter of ICC  
Tom Peterson – Utah Chapter of ICC  
Karen Richards – UAPMO

## TOPICS OF DISCUSSION

### **MINUTES:**

### **BUDGET REPORT FOR 2014-2015**

### **UBCC APPLICATION FOR FUNDING GRANT REVIEW FY 2014-2015:**

### **UBCC REQUEST FOR REIMBURSEMENTS**

## DECISIONS AND RECOMMENDATIONS

Kevin Phillips made a motion to approve the minutes from the December 16, 2014 meeting. Patrick Tomasino seconded the motion. The motion passed unanimously.

The budget reports were presented and reviewed by the Committee. Questions were asked and answered.

The committee considered an application from the ACI Intermountain Chapter for a total of \$3,732.00. Rob Allen made a motion to approve the funding request. Patrick Tomasino seconded the motion. The motion passed unanimously.

The committee considered an application from the Bonneville Chapter of ICC for a total of \$9,795.84. John Chase made a motion to approve the funding request. Kevin Phillips seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from Bonneville Chapter of ICC for a total of \$5,896.85. Rob Allen made a motion to approve the request for reimbursement. Patrick Tomasino seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from UAPMO for a total of \$4167.88. Kevin Phillips made a motion to approve the request for reimbursement. Patrick Tomasino seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from UAPMO for a total of \$5,096.00. Kevin Phillips made a motion to approve the request for reimbursement. Patrick Tomasino seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from UAPMO for a total of \$832.00. Kevin Phillips made a motion to approve the request for reimbursement. Patrick Tomasino seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from IEC for a total of \$725.00. Patrick Tomasino made a motion to approve the request for reimbursement. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from IEC for a total of \$2472.66. Patrick Tomasino made a motion to approve the request for reimbursement. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from IEC for a total of \$1695.14. Patrick Tomasino made a motion to approve the request for reimbursement. Rob Allen seconded the motion. The motion passed unanimously.

## **DISCUSSION**

### **MADCAD Update**

Tom Peterson informed the committee that MADCAD has been up and running since January 14, 2015. 76 persons have logged in to use MADCAD. Over 230 people have registered to use it. Mr. Peterson believes that having MADCAD will add better quality to final products. The Committee asked Mr. Peterson to come back monthly and present a summary report of MADCAD.

### **Grant/Reimbursement application forms review**

The committee reviewed the forms and discussed ideas for improving the forms. Clarification on line items were defined. Robyn Barkdull will make suggested changes and new forms will be made available on the website.

### **Snow Load Study**

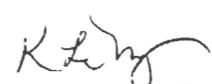
Chris Kimball presented SEAU's desire to obtain grant funding for a snow load study. Mr. Kimball stated that the current snow load study is 10 years old and there is a need to have current appropriate snow loads. Mr. Kimball proposed that since snow loads are related to the code that the committee take this into consideration for funding. The committee requested this item be on the next agenda as a discussion topic and that there would be someone there from DOPL to provide advice regarding law and rule.

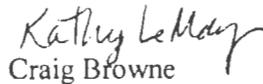
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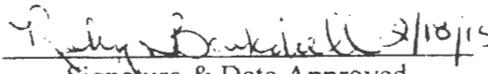
**NEXT MEETING:** The next committee meeting has been scheduled for Tuesday, February 17, 2015 1:00 p.m. in Room 464 (Fourth Floor) of the Heber M. Wells Building, Salt Lake City, Utah.

**ADJOURN:** Adjourned at 2:15 p.m. (no motion required)

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

 2/17/2015  
\_\_\_\_\_  
Signature & Date Approved

  
Craig Browne  
Chairperson, UBCC Education Advisory Committee

 2/10/15  
\_\_\_\_\_  
Signature & Date Approved

Robyn Barkdull  
Construction CE Manager, Division of Occupational and Professional Licensing

## MINUTES

### UTAH UBCC EDUCATION ADVISORY COMMITTEE MEETING December 16, 2014

Room 464 Fourth Floor – 1:00 p.m.  
Heber M. Wells Building  
Salt Lake City, UT 84111

**CONVENED:** 1:04 pm

**ADJOURNED:** 1:52 pm

**Construction CE Manager:**

Robyn Barkdull

**Board Secretary:**

Boyce Barnes

**Division Director:**

Mark Steinagel (Excused)

**Committee Members Present:**

Craig Browne (Chair)  
John Chase  
Kathy LeMay  
Jennifer Saunders  
Patrick Tomasino  
Kevin Phillips

**Committee Members Absent:**

Rob Allen  
Jim Thomas  
Shane Honey

**Guests:**

Cathryn Nelson (Herriman City/ Utah Chapter ICC)  
Carey Maedgen (Utah Chapter ICC)  
Karen Richards (UAPMO)  
Tom Peterson (Box Elder County/ Utah Chapter ICC)  
John Hill (RMGA)  
Richard Butz (UBCC)

#### TOPICS OF DISCUSSION

#### DECISIONS AND RECOMMENDATIONS

**MINUTES:**

Kevin Philips made a motion to approve the minutes from the October 21, 2014 meeting. John Chase seconded the motion. The motion passed unanimously.

**BUDGET REPORT FOR 2014-2015**

The budget reports were presented and reviewed by the Committee. Questions were asked and answered.

**UBCC APPLICATION FOR  
FUNDING GRANT REVIEW  
FY 2014-2015:**

The committee considered an application from the Utah Chapter ICC for a total of \$2,496.00. Kathy LeMay made a motion to approve the additional funding request. Patrick Tomasino seconded the motion. The motion passed unanimously.

**UBCC REQUEST FOR  
REIMBURSEMENTS**

The committee considered three requests for additional reimbursement from the Rocky Mountain Gas Association: \$3613.45, \$3291.45, and \$3968.45.

It was determined that the reimbursement requests from RMGA did not require an additional funding request. No new approval needed.

The committee considered a request for reimbursement from UAPMO for a total of \$740.00. Kevin Phillips made a motion to approve the request for reimbursement. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from Bonneville Chapter of ICC for a total of \$26,170.88. Kathy LeMay made a motion to approve the request for reimbursement. Kevin Phillips seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from Iron County HBA for a total of \$1959.41. Patrick Tomasino motioned to approve the request for reimbursement. Jennifer Saunders seconded the motion. The motion passed unanimously.

The committee discussed whether the current reimbursement request form needs some changes to be clearer. It was agreed that Robyn will send out the current reimbursement request form to committee members for review. Discussion of the reimbursement request forms will be scheduled for a later meeting.

**DISCUSSION**

**MADCAD SUBSCRIPTION UPDATE**

Tom Peterson gave an update of the MADCAD subscription. He sent out an email yesterday to all inspectors on the Utah chapter's email list. The MADCAD information was passed on to the Structural Engineers of Utah, architects, and others. He has a current list of 85 people that want to be put on the list. Many more requests are being received by people wanting access to the

reference standards from all over the state. Mr. Peterson foresees a successful implementation of MADCAD.

It was determined that contractors should also have access to MADCAD. Mr. Peterson will send out an email to the Home Builders Association. MADCAD will be available to anyone who needs it. The Utah Chapter of ICC has sent payment of \$30,000 for MADCAD and will request reimbursement shortly.

A usage document can be created each quarter. The standards available for access include: ASTM, ICC reference standards, NFPA, ASHRAE, ASCE, ASME, and access to federal guidelines and state of Utah local amendments.

It was determined that information should be added to the emails being sent out that this pilot program is being funded by the state. The draft of this letter will be sent to Robyn, who will forward it on to the committee members for review before being sent out.

**NEXT MEETING:**

The next committee meeting has been scheduled for Tuesday, January 20, 2015, 1:00 p.m. in Room 475 (Fourth Floor) of the Heber M. Wells Building, Salt Lake City, Utah.

**ADJOURN:**

Adjourned at 1:52 p.m. (no motion required)

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

\_\_\_\_\_  
Date Approved

Craig Browne  
Chairperson, UBCC Education Advisory Committee

\_\_\_\_\_  
Date Approved

Robyn Barkdull  
Construction CE Manager, Division of Occupational and  
Professional Licensing

**MINUTES**

**UTAH  
UBCC EDUCATION ADVISORY COMMITTEE  
MEETING  
February 17, 2015**

**Room 464 Fourth Floor – 1:00 p.m.  
Heber M. Wells Building  
Salt Lake City, UT 84111**

**CONVENED:** 1:05 p.m.

**ADJOURNED:** 2:55 p.m.

**Construction CE Manager:** Robyn Barkdull

**Board Secretary:** Boyce Barnes

**Division Director:** Mark Steinagel

**Committee Members Present:** Rob Allen  
Shane Honey  
Kathy LeMay  
Jennifer Saunders  
Jim Thomas  
Patrick Tomasino

**Committee Members Absent:** John Chase  
Kevin Phillips  
Craig Browne

**DOPL Employees Present:** Ray Walker – Regulatory Compliance Officer

**Guests:** Jerod Johnson - SEAU

## TOPICS OF DISCUSSION

### **MINUTES:**

### **BUDGET REPORT FOR FY 2015**

### **UBCC APPLICATION FOR FUNDING GRANT REVIEW FY 2014-2015:**

## DECISIONS AND RECOMMENDATIONS

Shane Honey made a motion to approve the minutes with suggested changes from the January 20, 2015 meeting. Jennifer Saunders seconded the motion. The motion passed unanimously.

The budget reports were presented and reviewed by the Committee. Questions were asked and answered.

The committee requested that the additional approved reimbursement amounts be tracked on a separate chart.

The committee considered an application from the SEAU for a total of \$40,000.00. Jerod Johnson presented SEAU's Snow Load Study application request for a funding grant. Mr. Johnson is the president of the SEAU. Mr. Johnson stated that SEAU has been studying this issue for the last 8-9 months, after being approached by the Snow Load Committee of the American Society of Civil Engineers – Community 7 (ASCE 7) who asked SEAU to assist them with an up-to-date snow load determination tool to be included in the next version of the ASCE 7 standard. ASCE 7 produces the standard which is the minimum design requirements for building and other structures. These codes are used by design professionals and the building industry to identify design loads.

As SEAU was studying the issue, Mr. Johnson stated that, "It became apparent that our snow load study is woefully outdated". The snow load study currently in use is from 1990. Scott Russell, a member of SEAU and on the code committee of SEAU, as well as on the Snow Load Committee of ASCE7 has helped SEAU come to understand what the state of the art methods are for prescribing snow loads. Mr. Johnson stated that there are far more up to date methodologies that have been developed by the Core of Engineers and other organizations for helping jurisdictions develop methods of prescribing ground snow loads and roof snow loads. He stated that they and many professionals agree that Utah is long overdue for a current study of snow loads in Utah. He believes that it would benefit the entire state by having correct and current snow loads. SEAU will put some of its own money in for the snow load study, but also will need more funding. He stated that this study would be a catalyst for educating Utah with correct snow loads.

Once the snow study is complete, the data would go to a server at

**UBCC APPLICATION FOR  
FUNDING GRANT  
REVIEW**

**FY 2014-2015: (continued)**

Utah State University, where they would keep and maintain that data. The data would be accessible to everyone. SEAU would then undertake the responsibility to educate engineers. Chris Kimball, Kimball Engineering, has volunteered to teach and educate building officials about this resource once the new study is complete.

Kathy Lemay asked if SEAU has approached other organizations for funding. Mr. Johnson said that they have but have not heard back from them yet. Members of the committee showed concerns regarding the implementing of the snow load study as it would need to go before the UBCC for adoption for amendment by the legislature. The committee also questioned the method and structure of providing the education of the new snow load study. The committee debated whether this study would fall under the Rule of providing code training and whether or not it could be approved under the Rule. Pro and con ideas were expressed.

Ray Walker stated that there may be a pertinent provision in Title 15A-209-5(c) The division shall use the money received under this Subsection (5) to provide education: (i) regarding the codes and code amendments that under Section 15A-1-204 are adopted, approved, or being considered for adoption or approval; and (ii) to: (A) building inspectors; and (B) individuals engaged in construction-related trades or professions. Mr. Walker stated that he believed the study qualified for funding based on the language that states "being considered for adoption or approval".

Patrick Tomasino suggested that there is an educational benefit from this study. Mr. Tomasino suggested that SEAU provide training dates for education, letters of support from the Structural Engineers Advisory Committee, a commitment to follow through with the process on bringing the study to the UBCC for adoption. Discussion of the above points were discussed at length.

Patrick Tomasino made a motion to approve this application based on the following conditions; provide training dates after completion of the study and a letter of recommendation from the Structural Engineers Advisory Committee stating they would recommend the study to the UBCC. Shane Honey seconded the motion. Kathy LeMay, Jennifer Saunders, Jim Thomas, Rob Allen opposed the motion. The motion failed 2-4.

Acting Chairperson, Kathy LeMay, recommended that the SEAU's funding request be added to next month's meeting agenda with an additional request for more information provide training dates after completion of the study and a letter of recommendation from the Structural Engineers Advisory

**UBCC APPLICATION FOR  
FUNDING GRANT  
REVIEW**

**FY 2014-2015: (continued)**

Committee stating they would recommend the study to the UBCC. Ms. LeMay also requested that DOPL obtain an informal opinion from the Attorney General's office regarding clarification of whether the study qualifies for a grant under the Rule. Robyn Barkdull advised SEAU to submit a new application for funding grant and to include the items that the committee requested.

The committee considered an application from the SWATC for a total of \$1,920.00. Jim Thomas made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Housing Alliance for a total of \$6,103.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

**UBCC REQUEST FOR  
REIMBURSEMENTS**

The committee considered a request for reimbursement from Utah Chapter ICC for a total of \$2,693.79. Shane Honey made a motion to approve the request for reimbursement. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from Utah Chapter ICC for a total of \$3,195.38. Rob Allen made a motion to approve the request for reimbursement. Jennifer Saunders seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from BATC for a total of \$2,043.80. Patrick Tomasino made a motion to approve the request for reimbursement. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from BATC for a total of \$3,029.00. Rob Allen made a motion to approve the request for reimbursement. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from BATC for a total of \$1,206.38. Shane Honey made a motion to approve the request for reimbursement. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from BATC for a total of \$1,679.50. Rob Allen made a motion to approve the request for reimbursement. Jim Thomas seconded the motion. The motion passed unanimously.

**UBCC REQUEST FOR REIMBURSEMENTS (continued)**

The committee considered a request for reimbursement from BATC for a total of \$804.00. Shane Honey made a motion to approve the request for reimbursement. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from BATC for a total of \$1,583.50. Rob Allen made a motion to approve the request for reimbursement. Jim Thomas seconded the motion. The motion passed unanimously.

**DISCUSSION**

**MADCAD Update**

MADCAD has been accessed 213 times since January. No one has been rejected from the site. The committee requested two items be reported at next month's meeting. The first item requested is a report of the number of different users and the number of times each user has logged into MADCAD. The second item requested is a report of any additional alerts or letters that have been sent out to inform or remind people of the availability of MADCAD for use a resource.

**NEXT MEETING:**

The next committee meeting has been scheduled for Tuesday, March 17, 2015 1:00 p.m. in Room 475 (Fourth Floor) of the Heber M. Wells Building, Salt Lake City, Utah.

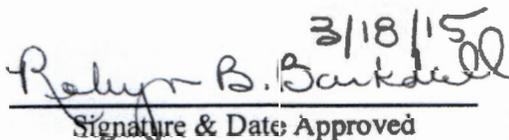
**ADJOURN:**

Adjourned at 2:55 p.m. (no motion required)

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

  
Signature & Date Approved 3/12/15

Craig Browne  
Chairperson, UBCC Education Advisory Committee

  
Signature & Date Approved 3/18/15

Robyn Barkdull  
Construction CE Manager, Division of Occupational and Professional Licensing

**MINUTES**  
**UTAH**  
**UBCC EDUCATION ADVISORY COMMITTEE**  
**MEETING**  
**March 17, 2015**

**Room 475 Fourth Floor – 1:00 p.m.**  
**Heber M. Wells Building**  
**Salt Lake City, UT 84111**

**CONVENED:** 1:05 p.m.

**ADJOURNED:** 2:16 p.m.

**Construction CE Manager:** Robyn Barkdull

**Board Secretary:** Boyce Barnes

**Division Director:** Mark Steinagel (excused)

**Committee Members Present:** Craig Browne  
John Chase  
Shane Honey  
Kevin Phillips  
Patrick Tomasino

**Committee Members Absent:** Rob Allen  
Kathy LeMay  
Jennifer Saunders  
Jim Thomas

**DOPL Employees Present:** Ray Walker – Regulatory Compliance Officer

**Guests:** Jerod Johnson - SEAU  
Richard Butz - UBCC liaison  
Tom Peterson – Utah Chapter ICC  
Enzo Calfa - DFCM

## TOPICS OF DISCUSSION

### **MINUTES:**

### **BUDGET REPORT FOR FY 2015**

### **UBCC APPLICATION FOR FUNDING GRANT REVIEW FY 2016:**

## DECISIONS AND RECOMMENDATIONS

Kevin Phillips made a motion to approve the minutes from the February 17, 2015 meeting. John Chase seconded the motion. The motion passed unanimously.

The budget reports were presented and reviewed by the Committee. Questions were asked and answered.

The committee considered an application from the SEAU for a Snow Load Study for a total of \$40,000.00. Robyn Barkdull and Ray Walker reported on their meeting with the Attorney General's office regarding this application. The conclusion of this meeting was the Snow Load Study does not meet the criteria for funding based upon the existing rule. They recommended that the SEAU present the Snow Load Study to the UBCC for consideration for recommendation to the State Legislature. It was also suggested that the SEAU obtain a legislative sponsor for funding the Snow Load Study.

Shane Honey motioned to decline the funding request based on the recommendation from DOPL and the Attorney General's office, Patrick Tomasino seconded the motion. The motion was unanimously declined.

The committee considered an application from the Southern Utah Division IAEI for a total of \$2,600.00. John Chase made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Southern Utah Division IAEI for a total of \$2,600.00. John Chase made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$3,239.00. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$3,940.00. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

**UBCC APPLICATION FOR  
FUNDING GRANT REVIEW  
FY 2016:  
(cont.)**

The committee considered an application from the Bridgerland ATC for a total of \$4,625.00. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$3,387.50. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$4,937.50. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$2,038.75. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$2,940.00. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$2,937.50. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$2,160.00. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$3,327.50. The committee determined the training was not code material. Craig Browne made a motion to decline the funding request. Kevin Phillips seconded the motion. The motion was unanimously declined.

The committee considered an application from the Bridgerland ATC for a total of \$3,940.00. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$3,940.00. Kevin Phillips made a motion to

**UBCC APPLICATION FOR  
FUNDING GRANT REVIEW**

**FY 2016:**

**(cont.)**

approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bridgerland ATC for a total of \$3,940.00. Kevin Phillips made a motion to approve the funding request. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Bonneville Chapter of ICC for a total of \$30,000.00. John Chase made a motion to approve the funding request. Patrick Tomasino seconded the motion. The motion passed unanimously.

The committee considered an application from the Bonneville Chapter of ICC for a total of \$2,000.00. John Chase made a motion to approve the funding request. Patrick Tomasino seconded the motion. The motion passed unanimously.

**UBCC REQUEST FOR  
REIMBURSEMENTS**

The committee considered a request for reimbursement from Southwest ATC for a total of \$2214.99. Shane Honey made a motion to approve the request for reimbursement. Kevin Phillips seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from Bridgerland ATC for a total of \$1164.38. Patrick Tomasino made a motion to approve the request for reimbursement. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from Southern Utah HBA for a total of \$14,423.99. Shane Honey made a motion to approve the request for reimbursement. Patrick Tomasino seconded the motion. The motion passed unanimously.

**DISCUSSION**

**MADCAD Update**

Tom Peterson distributed a summary of usage for the committee members to review. Questions were asked and answered.

An email reminder about MADCAD was sent out at the end of February. Discussion was held regarding obtaining licensee lists for an email notification. Robyn will research the rule for a report in April.

**HB193**

There was a short discussion of House Bill 193 that just recently passed the legislature. The Bill covers changes to the continuing education requirements for contractor license renewals.

**NEXT MEETING:**

The next committee meeting has been scheduled for Tuesday, April 21, 2015 1:00 p.m. in Room 464 (Fourth Floor) of the Heber M. Wells Building, Salt Lake City, Utah.

**ADJOURN:**

Adjourned at 2:16 p.m. (no motion required)

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

 4/21/15  
Signature & Date Approved

Craig Browne  
Chairperson, UBCC Education Advisory Committee

 4/22/15  
Signature & Date Approved

Robyn Barkdull  
Construction CE Manager, Division of Occupational and Professional Licensing

**MINUTES**

**UTAH  
UBCC EDUCATION ADVISORY COMMITTEE  
MEETING  
April 21, 2015**

**Room 464 Fourth Floor – 1:00 p.m.  
Heber M. Wells Building  
Salt Lake City, UT 84111**

**CONVENED: 1:07**

**ADJOURNED: 2:42**

**Construction CE Manager:** Robyn Barkdull

**Board Secretary:** Boyce Barnes

**Division Director:** Mark Steinagel (excused)

**Committee Members Present:**  
Rob Allen  
Craig Browne  
John Chase  
Shane Honey  
Kathy LeMay  
Kevin Phillips  
Jennifer Saunders  
Jim Thomas  
Patrick Tomasino

**Guests:**  
Carey Maedgen – Utah Chapter ICC  
David Hill – UPHCA  
Tammy Meldrum – ACI  
Brad Steven – IEC of Utah  
John Hill – RMGA  
Layne Western – IAEI  
Brandon Thueson - FMAU

## TOPICS OF DISCUSSION

### **MINUTES:**

## DECISIONS AND RECOMMENDATIONS

Kevin Phillips made a motion to approve the minutes from the March 17, 2015 meeting. Shane Honey seconded the motion. The motion passed unanimously.

### **BUDGET REPORT FOR FY 2015**

The budget reports were presented and reviewed by the Committee. Questions were asked and answered.

### **UBCC APPLICATION FOR FUNDING GRANT REVIEW FY 2015-2016:**

The committee considered an application from the ACI Intermountain Chapter for a total of \$1000.00. Shane Honey made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the ACI Intermountain Chapter for a total of \$1000.00. Shane Honey made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the ACI Intermountain Chapter for a total of \$1000.00. Shane Honey made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the Bonneville Chapter of ICC for a total of \$31,548.00. Rob Allen motioned to table the request until the May 19, 2015 meeting with the stipulation that Bonneville Chapter of ICC provides a more detailed cost breakdown of expenses. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered an application from the Fire Marshal's Association of Utah for a total of \$5,600.00. Kathy LeMay made a motion to approve the funding request. Kevin Phillips seconded the motion. The motion passed unanimously.

The committee considered an application from the Fire Marshal's Association of Utah for a total of \$1,680.00. Kathy LeMay made a motion to approve the funding request. Kevin Phillips seconded the motion. The motion passed unanimously.

The committee considered an application from the Fire Marshal's Association of Utah for a total of \$5,720.00. Kathy LeMay made a motion to approve the funding request. Kevin Phillips seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$1,440.00. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$1,440.00. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$720.00. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$1,440.00. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$1,837.69. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$1,440.00. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$1,440.00. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$720.00. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$1,440.00. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the IEC for a total of \$1,440.00. John Chase made a motion to approve the funding request. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the Iron County HBA for a total of \$1,200.00. Shane Honey made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the Iron County HBA for a total of \$1,200.00. Shane Honey made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the Iron County HBA for a total of \$1,200.00. Shane Honey made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the Iron County HBA for a total of \$1,600.00. Shane Honey made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the Iron County HBA for a total of \$1,200.00. Shane Honey made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the Iron County HBA for a total of \$1,200.00. Shane Honey made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the RMGA for a total of \$7,275.00. Rob Allen made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the RMGA for a total of \$3,300.00. Rob Allen made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the RMGA for a total of \$7,275.00. Rob Allen made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the RMGA for a total of \$3,550.00. Rob Allen made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the RMGA for a total of \$3,800.00. Rob Allen made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the RMGA for a total of \$7,275.00. Rob Allen made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the RMGA for a total of \$7,275.00. Rob Allen made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the RMGA for a total of \$7,275.00. Rob Allen made a motion to approve the funding request. Kathy LeMay seconded the motion. The motion passed unanimously.

The committee considered an application from the SEAU for a total of \$38,054.00. Patrick Tomasino made a motion to approve the funding request as discussed. Rob Allen seconded the motion. The motion passed unanimously.

The committee considered an application from the Southern Utah HBA for a total of \$32,305.00. Kevin Phillips made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Southern Utah HBA for a total of \$6,080.00. Kevin Phillips made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Southern Utah HBA for a total of \$2,800.00. Kevin Phillips made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Southern Utah HBA for a total of \$2,800.00. Kevin Phillips made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Chapter IAEI for a total of \$3,200.00. Kathy LeMay made a motion to approve the funding request as discussed or revised. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Chapter IAEI for a total of \$3,200.00. Kathy LeMay made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Chapter IAEI for a total of \$500.00. Kathy LeMay made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Chapter IAEI for a total of \$500.00. Kathy LeMay made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Chapter IAEI for a total of \$500.00. Kathy LeMay made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Chapter IAEI for a total of \$6200.00. Kathy LeMay made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Chapter IAEI for a total of \$6200.00. Kathy LeMay made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Chapter IAEI for a total of \$13,025.00. Kathy LeMay made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the Utah Chapter IAEI for a total of \$500.00. Kathy LeMay made a motion to approve the funding request. John Chase seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$1,460.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$1,460.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$1,460.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$1,460.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$1,460.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$1,460.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$1,460.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$860.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

The committee considered an application from the UPHCA for a total of \$1,460.00. Rob Allen made a motion to approve the funding request. Jim Thomas seconded the motion. The motion passed unanimously.

## **UBCC REQUEST FOR REIMBURSEMENTS**

The committee considered a request for reimbursement from IEC for a total of \$1,440.00. Kathy LeMay made a motion to approve with the amount change. Shane Honey seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from Utah Chapter of IAEI for a total of \$426.00. Rob Allen made a motion to approve the request for reimbursement. Kevin Phillips seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from Utah Chapter of IAEI for a total of \$536.00. Rob Allen made a motion to approve the request for reimbursement. Kevin Phillips seconded the motion. The motion passed unanimously.

The committee considered a request for reimbursement from Utah Chapter of IAEI for a total of \$448.00. Rob Allen made a motion to approve the request for reimbursement. Kevin Phillips seconded the motion. The motion passed unanimously.

Robyn Barkdull asked the committee if they would require applications, with expenses listed in Section B, to come back before the committee for review if the total expenses are less than the original approved amount. Rob Allen motioned to accept initial approval of funding requests with expenses in section B, if the total expenses are less than the original amount. Shane Honey seconded the motion. The motion passed unanimously.

## **DISCUSSION**

### **MADCAD Update**

Robyn Barkdull stated that in the previous meeting the question was brought up on whether MADCAD could request a DOPL mailing list of architects and engineers, and then send out an email blitz informing them about the MADCAD subscription. Ms. Barkdull talked with DOPL's regulatory officer, Ray Walker and DOPL's division director, Mark Steinagel. Both agreed that UBCC funds could be used to reimburse expense.

## **NEXT MEETING:**

The next committee meeting has been scheduled for Tuesday, May 19, 2015 1:00 p.m. in Room 464 (Fourth Floor) of the Heber M. Wells Building, Salt Lake City, Utah.

**ADJOURN: 2:42**

Adjourned at 2:42 p.m. (no motion required)

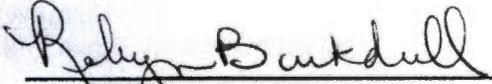
*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

 5/19/15  

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Signature & Date Approved

Craig Browne  
Chairperson, UBCC Education Advisory Committee

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Signature & Date Approved

Robyn Barkdull  
Construction CE Manager, Division of Occupational and  
Professional Licensing

UNIFORM BUILDING CODE COMMISSION

ELECTRICAL ADVISORY COMMITTEE  
MEETING

July 10, 2014 1:30  
North Conference Room Heber M Wells Bldg  
160 E 300 S Salt Lake City, UT

MINUTES

STAFF

Dan S Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ELECTRICAL ADVISORY COMMITTEE MEMBERS

|                      |                         |
|----------------------|-------------------------|
| Christopher Jensen   | David Wesemann (absent) |
| Mike Thomas          | Gary Beckstrand         |
| Chris Joyal, Liaison | Rhett Butler (excused)  |
| David Winger         |                         |

VISITORS

MINUTES

A motion was made by Mike Thomas to approve the minutes from the April 10, 2014 meeting as written. The motion was seconded by Chris Jensen and passed unanimously.

PLAN REVIEW OF ELECTRICAL  
PORTION OF 2015 IRC

Dan Jones gave an overview of the process that needs to be followed for the review of the 2015 codes.

Those present discussed the areas of the electrical portion of the 2015 IRC that might be controversial.

Those present will review Chapters 34 to 43 and then be ready to discuss them at the next meeting which will be held in October.

The meeting adjourned at 2:28.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

UNIFORM BUILDING CODE COMMISSION

ELECTRICAL ADVISORY COMMITTEE  
MEETING

October 30, 2014 1:30  
Room 474 Heber M Wells Bldg  
160 E 300 S Salt Lake City, UT

MINUTES

STAFF

Dan S Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ELECTRICAL ADVISORY COMMITTEE MEMBERS

|                      |                         |
|----------------------|-------------------------|
| Christopher Jensen   | David Wesemann (absent) |
| Mike Thomas          | Gary Beckstrand         |
| Chris Joyal, Liaison | Rhett Butler            |
| David Winger         |                         |

VISITORS

MINUTES

A motion was made by Mike Thomas to approve the minutes from the July 10, 2014 meeting as written. The motion was seconded by David Winger and passed unanimously.

DISCUSS COST TO IMPLEMENT 2014  
NEC

Those present discussed the Business and Labor Interim Committee's request for additional information pertaining to the cost for the implementation of the 2014 NEC. Dan Jones gave a review of the October meeting. Following a discussion, a motion was made by Mike Thomas to send Gary Beckstrand, Chris Joyal and Chris Jensen to the November meeting to discuss the cost issue. The motion was seconded by Rhett Butler and passed unanimously.

Some of the items that will be pointed out to the Business and Labor Interim Committee in connection with the code changes and the cost of implementation of the 2014 NEC will be the increased uniformity of enforcement of the electrical code by building officials, the changes in technology that will increase energy efficiency,

new modular data centers, code changes that will allow for smaller calculations for service size, and the fact that costs are discussed at the National Committee level before they are included in the new code.

REVIEW ELECTRICAL PORTION OF  
2015 IRC

The committee agreed to hold their next meeting in January and at that time start the discussion on the electrical portion of the 2015 IRC.

The meeting adjourned at 2:35.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

UNIFORM BUILDING CODE COMMISSION

ELECTRICAL ADVISORY COMMITTEE  
MEETING

March 12, 2015 1:30  
Room 464 Heber M Wells Bldg  
160 E 300 S Salt Lake City, UT

MINUTES

STAFF

Dan S Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ELECTRICAL ADVISORY COMMITTEE MEMBERS

|                       |                         |
|-----------------------|-------------------------|
| Christopher Jensen    | David Wesemann (absent) |
| Mike Thomas (excused) | Gary Beckstrand         |
| Chris Joyal, Liaison  | Rhett Butler            |
| David Winger          |                         |

VISITORS

MINUTES

A motion was made by Chris Jensen to approve the minutes from the October 30, 2014 meeting as written. The motion was seconded by Rhett Butler and passed unanimously.

Gary Beckstrand gave an update on the adoption of the 2014 NEC. He met with Ross Ford of the Home Builders Association in connection with the electrical code.

REVIEW ELECTRICAL PORTION OF  
2015 IRC

Gary Beckstrand passed out a recommendation from the National Association of Home Builders on their recommended state and local amendments to the 2014 edition of the NEC. A motion was made by Chris Joyal to review their recommendations as an agenda item at the next meeting. The motion was seconded by Rhett Butler and passed unanimously.

The committee reviewed the one current amendment for the electrical portion of the IRC. Chris Jensen volunteer to put together a list of significant changes for the electrical portion of the 2015 IRC. Dave Winger will help with the

development of the list of changes and also develop a list for the cross references to the NEC.

The meeting adjourned at 2:19.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

UNIFORM BUILDING CODE COMMISSION

ELECTRICAL ADVISORY COMMITTEE  
MEETING

April 9, 2015 1:30  
Room 464 Heber M Wells Bldg  
160 E 300 S Salt Lake City, UT

MINUTES

STAFF

Dan S Jones, Bureau Manager  
Sharon Smalley, Board Secretary

ELECTRICAL ADVISORY COMMITTEE MEMBERS

|                       |                         |
|-----------------------|-------------------------|
| Christopher Jensen    | David Wesemann (absent) |
| Mike Thomas (excused) | Gary Beckstrand         |
| Chris Joyal, Liaison  | Rhett Butler            |
| David Winger          |                         |

VISITORS

MINUTES

A motion was made by Chris Joyal to approve the minutes from the March 12, 2015 meeting as written. The motion was seconded by David Winger and passed unanimously.

REVIEW ELECTRICAL PORTION OF  
2015 IRC

Chris Jensen gave a report on the significant changes to the electrical portion of the 2015 residential code. Each item was reviewed and a cost estimate was developed.

During the review of Section E3902.16 it was pointed out that there is currently an amendment for this section. A recommendation for this section was tabled until the next meeting since there was no one there from the home owners to give their opinion. This will be an agenda item for the next meeting.

During the review of Section E3901.9 a recommendation was made to add an exception that would state, "Receptacles or other outlets adjacent to the exterior walls of the garage or outlets in storage rooms with entry from the garage

shall be permitted to be connected to the garage branch circuit." Following the discussion, a motion was made by Dave Winger to add the amendment. The motion was seconded by Rhett Butler and passed unanimously.

The meeting adjourned at 3:07.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

UNIFORM BUILDING CODE COMMISSION  
MECHANICAL ADVISORY COMMITTEE

September 9, 2014  
Heber M Wells Building Room 474  
160 E 300 S  
Salt Lake City, Utah  
MINUTES

STAFF:

Dan S. Jones, Bureau Manager  
Sharon Smalley, Board Secretary

MECHANICAL ADVISORY COMMITTEE:

|                        |                       |
|------------------------|-----------------------|
| David Wilson (excused) | Tyler Lewis (excused) |
| Trent Hunt             | Brent Ursenbach       |
| Dennis Thatcher        | Roger Hamlet          |
| Randy Beckstead        | John Gassman          |

MINUTES

A motion was made by Trent Hunt to approve the minutes from the February 11, 2014 meeting as written. The motion was seconded by Roger Hamlet and passed unanimously.

REVIEW 2015 IMC AND CURRENT AMENDMENTS

Those present discussed the review of the 2015 IMC, IFGC, IECC and the residential portion of those codes. Chapter assignments were volunteered for as follows:

- Trent Hunt - IMC Chapters 4, 5, 11, and 12 and the mechanical portion of the IRC
- Roger Hamlet - IMC Chapters 4, 5, 10, 11 and 12 plus the mechanical portion of the IECC
- Randy Beckstead - IMC Chapters 9, 10, 12 and 13 and the mechanical portion of the IRC
- Brent Ursenbach - remaining chapters of IMC and the residential portion of the IECC
- Dennis Thatcher will review the mechanical portion of the IRC

The committee agreed that they will not hold a meeting in October and that the meeting in November will be held on the 4th.

The meeting adjourned at 1:57.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

UNIFORM BUILDING CODE COMMISSION  
MECHANICAL ADVISORY COMMITTEE

November 4, 2014  
Heber M Wells Building Room 474  
160 E 300 S  
Salt Lake City, Utah  
MINUTES

STAFF:

Dan S. Jones, Bureau Manager  
Sharon Smalley, Board Secretary

MECHANICAL ADVISORY COMMITTEE:

|                           |                           |
|---------------------------|---------------------------|
| David Wilson              | Tyler Lewis               |
| Trent Hunt                | Brent Ursenbach (excused) |
| Dennis Thatcher           | Roger Hamlet              |
| Randy Beckstead (excused) | Kevin Bell (excused)      |

David Wilson acted as chairman for this meeting.

MINUTES

A motion was made by Roger Hamlet to approve the minutes from the September 9, 2014 meeting as written. The motion was seconded by Dennis Thatcher and passed unanimously.

REVIEW 2015 IMC AND CURRENT  
AMENDMENTS

Those present reviewed the 2015 IMC and the residential portion of this code. Dennis Thatcher gave a report on his review of the mechanical portion of the residential code. Dennis Thatcher and Roger Hamlet will draft an amendment for Section M2427 of the 2015 IRC. This committee has asked Brent Ursenbach to address this issue on the national level.

A motion was made by Dennis Thatcher to modify the current amendment for Section M1411.6 by changing the section number to M1411.8. The motion was seconded by Roger Hamlet and passed unanimously.

A motion was made by Roger Hamlet to keep the current amendment for Section G2401.2. The motion was seconded by Tyler Lewis and passed unanimously.

The recommendation for Sections M1601.1.1 and M1901.3 was tabled until the next meeting.

David Wilson volunteered to review the 2015  
IECC.

The meeting adjourned at 2:13.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

UNIFORM BUILDING CODE COMMISSION  
MECHANICAL ADVISORY COMMITTEE

December 9, 2014  
Heber M Wells Building Room 474  
160 E 300 S  
Salt Lake City, Utah  
MINUTES

STAFF:

Dan S. Jones, Bureau Manager  
Sharon Smalley, Board Secretary

MECHANICAL ADVISORY COMMITTEE:

|                 |                          |
|-----------------|--------------------------|
| David Wilson    | Tyler Lewis              |
| Trent Hunt      | Brent Ursenbach (absent) |
| Dennis Thatcher | Roger Hamlet (absent)    |
| Randy Beckstead | Kevin Bell (absent)      |

MINUTES

A motion was made by David Wilson to approve the minutes from the November 4, 2014 meeting as written. The motion was seconded by Dennis Thatcher and passed unanimously.

REVIEW 2015 IMC AND CURRENT  
AMENDMENTS

The committee members reviewed the current amendments and compared them to the new code and the following recommendations were made.

A motion was made by Dennis Thatcher recommending that the current amendment for Section 1101.10 be kept. The motion was seconded by David Wilson and passed unanimously.

A motion was made by David Wilson recommending that the current amendment for Section 202, definition for conditioned space, be deleted as it is now addressed in the 2015 code. The motion was seconded by Randy Beckstead and passed unanimously.

A motion was made by David Wilson recommending that the current amendment for Section 403.2.1 be deleted as it is now covered in the new code. The motion was seconded by Randy Beckstead and passed unanimously.

A motion was made by David Wilson recommending that the current amendment for Table 403.3

Note b be deleted as it is now covered in the new code. The motion was seconded by Randy Beckstead and passed unanimously.

A motion was made by Dennis Thatcher recommending that the current amendment for Table 403.3 Note h be deleted. The motion was seconded by Randy Beckstead. During the discussion on the motion it was recommended that the motion be modified to include that the code provision of the amendment are addressed in the 2015 code. Both the first and seconded concurred and the modified motion passed unanimously.

A motion was made by Dennis Thatcher recommending that the current amendment for Section 403.8 be deleted as it is now covered in the new code. The motion was seconded by David Wilson and passed unanimously.

The recommendation for the current amendment for Section 603.4 was tabled until next meeting.

A motion was made by David Wilson recommending that the current amendment for Section 1004.2 be kept. The motion was seconded by Randy Beckstead and passed unanimously.

A motion was made by David Wilson recommending that the current amendment for Section 1004.3.1 be kept. The motion was seconded by Randy Beckstead and passed unanimously.

Randy Beckstead asked the committee to review Section 1209.3 for a possible new amendment. Following the discussion on the section, a motion was made by Dennis Thatcher to add a new amendment for this section that would add the words "or other methods approved for the application" to the end of the section. The motion was seconded by Randy Beckstead and passed unanimously.

Trent Hunt passed out a handout that covers the changes to the 2015 IECC for the committee to review for the discussion and review of the new code.

The meeting adjourned at 3:17.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

UNIFORM BUILDING CODE COMMISSION  
MECHANICAL ADVISORY COMMITTEE

January 13, 2015  
Heber M Wells Building Room 474  
160 E 300 S  
Salt Lake City, Utah  
MINUTES

STAFF:

Dan S. Jones, Bureau Manager  
Sharon Smalley, Board Secretary

MECHANICAL ADVISORY COMMITTEE:

|                        |                       |
|------------------------|-----------------------|
| David Wilson (excused) | Tyler Lewis (excused) |
| Trent Hunt             | Brent Ursenbach       |
| Dennis Thatcher        | Roger Hamlet          |
| Randy Beckstead        | Kevin Bell (absent)   |

VISITORS:

Kevin Emerson

MINUTES

A motion was made by Dennis Thatcher to approve the minutes from the December 9, 2014 meeting as written. The motion was seconded by Trent Hunt and passed unanimously.

REVIEW 2015 IMC AND CURRENT  
AMENDMENTS

Brent Ursenbach asked that the recommendation for the current amendment for IMC Section 603.4 and IRC Section M1601.1.1(2) be tabled until the next meeting.

A motion was made by Trent Hunt to delete the current amendment for the IRC M1901.3. The motion was seconded by Randy Beckstead and passed unanimously.

The committee discussed the 2015 IEBC in connection with Chapter 34 no longer being in the 2015 IBC and how it could possible impact the energy and mechanical codes. Brent Ursenbach volunteered to talk with Scott Marsell, chair of the Architectural Advisory Committee, and Jerry Thompson, chair of the Structural Advisory Committee.

The committee began their review of the 2015 IECC. Kevin Emerson talked to the committee in connection with the energy code. He passed out the

Utah Energy Efficiency & Conservation Plan and the Clean Air Action Team Recommendations. He pointed out several of the recommendation that were similar in these two handouts. Brent Ursenbach volunteered to talk with Ross Ford of the Utah Home Builders Association to see what concerns they have with the 2015 Energy Code.

Trent Hunt asked the committee to look at C402 and C403.2.1 for the next meeting. Roger Hamlet will review C403.2.1.

Roger Hamlet asked the committee to look at section 403.2.9.1.3 for a possible correction.

The meeting adjourned at 3:30.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

UNIFORM BUILDING CODE COMMISSION  
MECHANICAL ADVISORY COMMITTEE

February 10, 2015  
Heber M Wells Building Room 474  
160 E 300 S  
Salt Lake City, Utah  
MINUTES

STAFF:

Dan S. Jones, Bureau Manager  
Sharon Smalley, Board Secretary

MECHANICAL ADVISORY COMMITTEE:

|                          |                 |
|--------------------------|-----------------|
| David Wilson             | Tyler Lewis     |
| Trent Hunt (excused)     | Brent Ursenbach |
| Dennis Thatcher          | Roger Hamlet    |
| Randy Beckstead (absent) | Kevin Bell      |

VISITORS:

|                                  |                          |
|----------------------------------|--------------------------|
| Mitalee Gupta, Utah Clean Energy | Jay Baker, Envision Utah |
|----------------------------------|--------------------------|

MINUTES

A motion was made by Roger Hamlet to approve the minutes from the January 13, 2015 meeting as corrected. The motion was seconded by Dennis Thatcher and passed unanimously.

REVIEW CURRENT AMENDMENT FOR SECTION 603.4 AND M1601.1.1(2)

The committee reviewed this current amendment. Following the discussion and comparison with the 2015 code, a motion was made by Dennis Thatcher to delete the current amendment as it is covered in the new code. The motion was seconded by Dave Wilson and passed unanimously.

REVIEW SECTION 403.2.9.1.3

Roger Hamlet gave a review of this section of the 2015 IECC. Following the discussion it was decided that an amendment needs to be drafted. Roger Hamlet will draft an amendment for review.

REVIEW 2015 IFGC AND CURRENT AMENDMENTS

The committee reviewed the 2015 IFGC and the three current amendments for this code. Following the review, a motion was made by Dave Wilson to keep the three current amendments. The motion was seconded by Dennis Thatcher and passed unanimously. Roger Hamlet will draft a proposal to modify the amendment for Section 631.2 for review at the next meeting.

The committee discussed Section 502.1 for venting material.

#### BEGIN REVIEW OF 2015 IECC

Mitalee Gupta spoke to the committee in connection with adopting the 2015 IECC. She passed out a packet that pointed out the advantages of adopting the 2015 IECC. The committee reviewed and discuss the analysis of the impact of adopting the 2015 code and the energy savings from adopting the new code.

The meeting adjourned at 3:45.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

UNIFORM BUILDING CODE COMMISSION  
MECHANICAL ADVISORY COMMITTEE

April 14, 2015  
Heber M Wells Building Room 474  
160 E 300 S  
Salt Lake City, Utah  
MINUTES

STAFF:

Dan S. Jones, Bureau Manager  
Sharon Smalley, Board Secretary

MECHANICAL ADVISORY COMMITTEE:

|                          |                        |
|--------------------------|------------------------|
| David Wilson             | Tyler Lewis            |
| Trent Hunt               | Brent Ursenbach        |
| Dennis Thatcher          | Roger Hamlet (excused) |
| Randy Beckstead (absent) | Kevin Bell (absent)    |

VISITORS:

Kevin Emerson, Utah Clean Energy

MINUTES

A motion was made by David Wilson to approve the minutes from the February 10, 2015 meeting as written. The motion was seconded by Trent Hunt and passed unanimously.

REVIEW AMENDMENT FOR IECC SECTION 403.2.9.1.3

Review of this section was tabled until the next meeting. Trent Hunt will prepare wording for review.

REVIEW AMENDMENT FOR IFGC SECTION 631.2

Review of this section was tabled until the next meeting.

COMPLETE REVIEW OF IMC & IFGC

Brent Ursenbach reported on his review of the 2015 IMC and pointed out the major changes from the 2012 to the 2015. He pointed out that many of these changes were for clarification and that this would make the intent of the code easier to understand. During the review, Brent asked that the committee look at the changes in Section 403 Mechanical Ventilation for the next meeting.

BEGIN REVIEW OF 2015 IECC

Kevin Emerson talked to the committee and reported that the Office of Energy Development has requested some cost effective analysis for the commercial and residential energy codes and was granted a technical analysis from the Department of

Energy. He will be provided these reports to the committee. The commercial report should be ready for review at the May meeting.

The meeting adjourned at 3:30.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

UNIFORM BUILDING CODE COMMISSION  
MECHANICAL ADVISORY COMMITTEE

May 12, 2015  
Heber M Wells Building Room 474  
160 E 300 S  
Salt Lake City, Utah  
MINUTES

STAFF:

Dan S. Jones, Bureau Manager  
Sharon Smalley, Board Secretary

MECHANICAL ADVISORY COMMITTEE:

|                        |                        |
|------------------------|------------------------|
| David Wilson (excused) | Tyler Lewis (absent)   |
| Trent Hunt             | Brent Ursenbach        |
| Dennis Thatcher        | Roger Hamlet (excused) |
| Randy Beckstead        | Kevin Bell (absent)    |

VISITORS:

Graham Rich , Utah Clean Energy

MINUTES

A motion was made by Dennis Thatcher to approve the minutes from the April 14, 2015 meeting as written. The motion was seconded by Randy Beckstead and passed unanimously.

REVIEW AMENDMENT FOR IECC SECTION 403.2.9.1.3

This item was tabled until the next meeting. Brent Ursenbach also suggested that Section C408.2 be reviewed.

REVIEW AMENDMENT FOR IFGC SECTION 631.2

This item was tabled until the next meeting.

COMPLETE REVIEW OF IMC STARTING WITH CHAPTER 5 & IFGC

Brent Ursenbach covered the changes that have been made in the 2015 IMC. He pointed out that many of these changes are for clarification and that many of the items are a cost savings.

BEGIN REVIEW OF 2015 IECC  
The meeting adjourned at 3:33.

This item was tabled until the next meeting.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

MINUTES

UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

August 7, 2014

North Conference Room – 9:00 am  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, Utah

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Secretary

COMMITTEE MEMBERS:

Kerry Cramer  
Jody Hilton  
Robert Paterson  
Michael Moss

Nelson Hooton (absent)  
Jeffrey Park  
Ray Moore  
Kevin Bell

VISITORS:

MINUTES

No motion was made for the approval of the July 3, 2014 meeting minutes.

REVIEW 2015 IPC AND CORRESPONDING CHAPTERS OF 2015 IRC ALONG WITH CURRENT AMENDMENTS

Those present reviewed the significant changes to the 2015 IPC and the current amendments. During the discussion on Chapters 1 to 3, the following recommendations were made.

Chapter 1

Dan Jones made a recommendation to modify the section number for the current amendment to section 101.2 by changing the number to 101.2.1. A motion was made by Jody Hilton to make this change and keep the amendment as modified. The motion was seconded by Kevin Bell and passed unanimously.

Chapter 2

A motion was made by Michael Moss and seconded by Jody Hilton to keep the current amendment for Section 202 for the definition for back-flow backpressure low head. The motion passed unanimously.

A motion was made by Michael Moss and seconded by Jeff Park to keep the current amendments for Section 202 for the definition for certified backflow preventer assembly tester in both the IPC and the IRC. The motion passed unanimously.

The recommendation for the amendments for the definitions for contamination(high hazard), high hazard, low hazard, and pollution (low hazard) was tabled until table 608.1, where these words are referenced, can be reviewed.

A motion was made by Michael Moss and seconded by Kerry Cramer to keep the current amendment for the definition of cross connection in both the IPC and the IRC. The motion passed unanimously.

A motion was made by Jody Hilton and seconded by Michael Moss to keep the amendment for the definition of deep seal trap. The motion passed unanimously.

A motion was made by Michael Moss and seconded by Kevin Bell to keep the amendment for the definition for gray water in both the IPC and the IRC. The motion passed unanimously.

A motion was made by Michael Moss and seconded by Jeff Park to keep the amendment for the definition of potable water in both the IPC and the IRC. The motion passed unanimously.

The committee had no recommendations to make for any changes to any of the new definitions that have been added to the 2015 IPC.

### Chapter 3

A motion was made by Michael Moss to keep the current amendment for section 303.4. The motion was seconded by Jody Hilton and passed unanimously.

A motion was made by Michael Moss to delete the current amendment for section 304.3. The motion

was seconded by Jody Hilton. The motion passed with a vote of six in favor and Jody Hilton voting in opposition.

The committee reviewed a new section, 307.5. Following the review and discussion by the committee, a motion was made by Jody Hilton and seconded by Kevin Bell to delete the new section. The motion passed with a vote of four in favor and Jeff Park, Michael Moss, and Ray Moore voting in opposition. Dan Jones recommended that this section be reviewed by the Structural Advisory Committee for their recommendation.

A motion was made by Jeff Park and seconded by Kevin Bell to keep the amendment for section 311.1. The motion failed with all voting in opposition. Following further discussion, a motion was made by Jeff Park and seconded by Kevin Bell to keep the amendment. The motion failed with all voting in opposition. A new motion was made by Kerry Cramer to delete the current amendment but amend the section by deleting the words "and shall be maintained in a sanitary condition". The motion was seconded by Jody Hilton and failed with a vote of one in favor and Jody Hilton, Robert Paterson, Ray Moore, Michael Moss, Kevin Bell and Jeffrey Park voting in opposition. A new motion was then made by Jody Hilton and seconded by Kevin Bell to delete the amendment. The motion passed unanimously.

A motion was made by Jody Hilton to keep the amendments as previously modified for sections 312.3 and 312.5. The motion was seconded by Michael Moss and passed unanimously.

A motion was made by Michael Moss and seconded by Jody Hilton to keep the amendment for section 312.10.3. The motion passed unanimously.

Ray Moore introduced new amendment for sections 314.2.4.1 and an amendment to add a new section 314.2.4.2. The proposal will be reviewed further at the next meeting.

This committee is asking the Mechanical Advisory Committee to review Section 307 of the IMC for clarification before a decision is made on the new section for 314.5.

Chapters 4 and 5 will be reviewed at next months meeting along with the current amendments for those chapters

The meeting adjourned at 11:10.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

September 4, 2014

North Conference Room – 9:00 am  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, Utah

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Secretary

COMMITTEE MEMBERS:

|                           |               |
|---------------------------|---------------|
| Kerry Cramer              | Nelson Hooton |
| Jody Hilton (excused)     | Jeffrey Park  |
| Robert Paterson (excused) | Ray Moore     |
| Michael Moss (excused)    | Kevin Bell    |

VISITORS:

MINUTES

A motion was made by Jeff Park to approve the minutes for the July 3, and August 7, 2014 meeting as written. The motion was seconded by Kevin Bell and passed unanimously.

REVIEW PROPOSED AMENDMENTS TO SECTION 314.2.4.1 AND 314.2.4.2

A recommendation for this proposal was tabled until the next meeting.

REVIEW 2015 IPC AND CORRESPONDING CHAPTERS OF 2015 IRC ALONG WITH CURRENT AMENDMENTS

Those present reviewed the 2015 changes that have been made in chapters 4 and 5 and the current amendments for these chapters. The following recommendations were made.

A motion was made by Kerry Cramer to modify the current amendment for Section 403.1 by changing the title back to Minimum Number of Required Plumbing Fixtures in (a); in (b) delete the word "the" before the word "row", add the words "number "3"" after the word "row" and change the footnote number to g; in (c) add the word "the" before the word "row", add the words "number "5"" after the word "row", add the words "Adult day care and child day care" after "I-4" and

change the footnote number to g; in (d) change the footnote number to f and add the words "Diaper Changing Facilities shall meet the requirements of ASTM F2285-04 (2010) Standard Consumer Safety Performance Specifications for Diaper Changing Tables for Commercial Use"; and in (e) change the footnote to g and the word "the" before the word "additional". The motion was seconded by Jeff Park and passed unanimously.

A motion was made by Jeff Park to keep the current amendment for Section 406.3. The motion was seconded by Kevin Bell and passed unanimously.

A motion was made by Kerry Cramer to keep the current amendment for Section 412.5, however, the motion failed due to the lack of a second. A new motion was then made by Kevin Bell and seconded by Jeff Park to delete the current amendment. During the discussion on the motion, the motion and second were withdrawn.

A new motion was made by Ray Moore to keep the current amendment for Section 412.5 with a modification by adding the words "in A & E occupancies and M occupancies with restrooms having multiple water closets or urinals" after the word "rooms". The motion was seconded by Kerry Cramer and passed unanimously.

A motion was made by Ray Moore to keep Section 502.4 and modify the wording of the current amendment by deleting the first and last sentences and adding the words "As a minimum requirement" as the first sentence. The motion was seconded by Kerry Cramer and passed unanimously.

A motion was made by Jeff Park to keep the current amendment for Section 504.7.2. The motion was seconded by Kevin Bell and passed unanimously.

A motion was made by Jeff Park to keep the current amendment for Section 504.7.3. The motion was seconded by Kevin Bell and passed unanimously.

Chapter 6 will be reviewed at the next meeting.

The meeting adjourned at 10:15

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES  
UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

October 2, 2014

North Conference Room – 9:30 am  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, Utah

STAFF:

Sharon Smalley, Secretary

COMMITTEE MEMBERS:

Kerry Cramer  
Jody Hilton  
Robert Paterson (absent)  
Michael Moss

Nelson Hooton  
Jeffrey Park  
Ray Moore  
Kevin Bell

VISITORS:

MINUTES

A motion was made by Kerry Cramer to approve the minutes for the September 4, 2014 meeting as written. The motion was seconded by Kevin Bell and passed unanimously.

REVIEW PROPOSED AMENDMENTS TO SECTION 314.2.4.1 AND 314.2.4.2

A recommendation for this proposal was tabled until the next meeting.

REVIEW CHAPTER 6 OF THE 2015 IPC AND CORRESPONDING CHAPTERS OF 2015 IRC ALONG WITH CURRENT AMENDMENTS

Those present review the changes that have been made in Chapter 6 and the current amendments for this chapter. The following recommendations were made.

A motion was made by Michael Moss to keep the current amendment for Section 602.3. The motion was seconded by Jeff Park and the motion passed unanimously.

A motion was made by Michael Moss to keep current amendment number (2) in 15A-3-306. The motion was seconded by Kevin Bell and passed unanimously.

A motion was made by Kerry Cramer to modify

the current amendment for Section 604.4.1 by adding the words "for food service establishments" after the word "faucets" in the title. The motion was seconded by Michael Moss and passed unanimously.

A motion was made by Michael Moss to keep the current amendments for 606.5 and 606.5.11. The motion was seconded by Kerry Cramer and passed unanimously.

Following a discussion on Section 607.2.1.2, it was decided to table the decision until further study can be done.

A motion was made by Michael Moss to keep the current amendment for Section 608.1. The motion was seconded by Kerry Cramer and passed unanimously.

Kerry Cramer passed out a proposal to modify Section 608.1 by adding five exceptions to the table. After the committee reviewed the proposal, it was agreed to table the recommendation and Ray Moore will reword the proposal for review at the next meeting.

A motion was made by Michael Moss to delete the amendment for Table 608.1. The motion was seconded by Kerry Cramer and passed unanimously.

The committee reviewed a recommendation from Kerry Cramer and Michael Moss to modify the installation criteria for Table 608.1. Following a discussion on the proposal, it was agreed to add additional wording. Ray Moore will bring back the wording to add 608.1.1 Prohibited Fixture Applications, 608.1.2 General Installation Criteria, and 608.1.3 Installation Criteria for review at the next meeting.

A motion was made by Kerry Cramer to keep the current amendment for Section 608.3. The motion was seconded by Kevin Bell and passed unanimously.

A motion was made by Michael Moss to keep the

current amendment for Section 608.5. The motion was seconded by Kerry Cramer and passed unanimously.

A motion was made by Kevin Bell to keep the current amendment for Section 608.6. The motion was seconded by Jody Hilton and passed unanimously.

During the discussion on the current amendment for Section 608.7, it was recommended that the amendment be modified by deleting the words "to be" and replacing them with the wording, "when properly installed". The decision was tabled and Ray Moore will bring wording to the next meeting for review.

A motion was made by Michael Moss to keep the current amendment for Section 608.11. The motion was seconded by Kevin Bell and passed unanimously.

Jody Hilton asked the committee to reconsider the current amendment for the floor drains.

The rest of chapter six will be reviewed at the next meeting.

The meeting adjourned at 10:15

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

,MINUTES

UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

December 4, 2014

North Conference Room – 9:30 am  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, Utah

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Secretary

COMMITTEE MEMBERS:

Kerry Cramer  
Jody Hilton  
Robert Paterson  
Michael Moss

Nelson Hooton  
Jeffrey Park  
Ray Moore  
Kevin Bell

VISITORS:

Candace Daly, Utah Beauty Association  
Brenda Scharman, Cameo College  
Jillian Wheeler, Utah Beauty Association

MINUTES

A motion was made by Jody Hilton to approve the minutes for the October 2, 2014 meeting as written. The motion was seconded by Michael Moss and passed unanimously.

REVIEW PROPOSED AMENDMENTS TO SECTION 314.2.4.1 AND 314.2.4.2

Discussion on this section was tabled until the next meeting.

REVIEW SECTION 423.3 OF 2015 IPC

Kerry Cramer spoke to the group in connection with the request he received to have this section of the code deleted. Candace Daly and Brenda Scharman spoke in favor of having this section deleted and gave their reasons behind the request. Following the discussion, a motion was made by Kerry Cramer to delete Section 423.3. The motion was seconded by Michael Moss and passed with a vote of five in favor and Jody Hilton, Robert Paterson, and Ray Moore voting in opposition.

REVIEW WORDING FOR AMEND-

Ray Moore passed out a proposal for new amend-

MENTS TO SECTION 608.1, TABLE  
608.1 AND SECTION 608.7

ments to Section 608.1. Following a review of the proposal, a motion was made by Michael Moss to approve the proposed amendments for 608.1 to add 608.1.2, 608.1.3 and the three subsections for installation criteria. The motion was seconded by Kerry Cramer and passed unanimously.

The discussion on an amendment to Section 608.7 was tabled until the next meeting.

COMPLETE REVIEW OF CHAPTER  
6 OF THE 2015 AND CORRE-  
SPONDING CHAPTERS OF 2015  
IRC ALONG WITH CURRENT  
AMENDMENTS

The committee reviewed the remaining amendments to Chapter 6 and the following recommendations were made.

A motion was made by Kerry Cramer to keep the current amendment for Section 608.13.3. The motion was seconded by Michael Moss and passed unanimously.

A motion was made by Michael Moss to keep the current amendment for Section 608.13.4. The motion was seconded by Kerry Cramer and passed unanimously.

The current amendment for Section 608.13.9 will be reviewed at the next meeting.

The meeting adjourned at 10:57.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

January 8, 2015

North Conference Room – 9:30 am  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, Utah

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Secretary

COMMITTEE MEMBERS:

Kerry Cramer (excused)  
Jody Hilton  
Robert Paterson  
Michael Moss (excused)

Nelson Hooton  
Jeffrey Park  
Ray Moore (excused)  
Kevin Bell

VISITORS:

Ron George, Plumb-Tech Design & Consulting Services, LLC

MINUTES

A motion was made by Jeff Park to approve the minutes from the December 4, 2014 meeting as written. The motion was seconded by Kevin Bell and passed unanimously.

REVIEW PROPOSED AMENDMENTS TO SECTIONS 1002.1, 1002.3, 1002.4 AND 15a-3-314

Ron George spoke to the committee in connection with the proposed amendments. Following a discussion by all present, a motion was made by Jeff Park to table the decision until the next meeting. The motion was seconded by Robert Paterson and passed unanimously.

REVIEW THE DEFINITIONS FOR CONTAMINATION (HIGH HAZARD), HIGH HAZARD, LOW HAZARD, AND POLLUTION (LOW HAZARD)

A motion was made by Robert Paterson to defer the discussion of the remaining agenda items until the next meeting. The motion was seconded by Kevin Bell and passed unanimously.

REVIEW PROPOSED AMENDMENTS TO SECTION 314.2.4.1 AND 314.2.4.2

Kevin Bell asked the committee to consider re-viewing the amendment on floor drains again. Jody Hilton asked that this be deferred until the next meeting to give him time to talk to the various chapters and get their input.

REVIEW SECTION 607.2.1.2

Jody Hilton asked the committee to look at Section 708.11.2 and 708.1.10 for the review at the next meeting.

REVIEW SECTION 608.7 OF 2015  
IPC

COMPLETE REVIEW OF CHAPTER  
6 OF THE 2015 IPC AND CORRE-  
SPONDING CHAPTERS OF 2015  
IRC ALONG WITH CURRENT  
AMENDMENTS

The meeting adjourned at 10:57.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

February 5, 2015

Room 475 – 9:30 am  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, Utah

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Secretary

COMMITTEE MEMBERS:

Kerry Cramer  
Jody Hilton  
Robert Paterson (absent)  
Michael Moss

Nelson Hooton  
Jeffrey Park  
Ray Moore  
Kevin Bell

VISITORS:

Ron George, Plumb-Tech Design & Consulting Services, LLC

MINUTES

A motion was made by Kevin Bell to approve the minutes from the January 8, 2015 meeting as written. The motion was seconded by Jody Hilton and passed unanimously.

REVIEW PROPOSED AMENDMENTS TO SECTIONS 1002.1, 1002.3, 1002.4 AND 15a-3-314

Ron George spoke to the committee in connection with the proposed amendments for a sanitary waste valve. Following a discussion by all present, a motion was made by Kerry Cramer to not approve the proposal as written and make a recommendation that it be resubmitted based on the 2015 code with the deletion of the inch and a half and the residential restrictions. The motion was seconded by Kevin Bell. Following the discussion on the motion, the motion passed unanimously.

The remainder of the agenda items were tabled until the next meeting. It was agreed to start the meetings at 9:00 again.

The meeting adjourned at 10:52.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

March 5, 2015

North Conference Room – 9:00 am  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, Utah

STAFF:

Sharon Smalley, Secretary

COMMITTEE MEMBERS:

Kerry Cramer  
Jody Hilton (excused)  
Robert Patterson  
Michael Moss

Nelson Hooton (excused)  
Jeffrey Park (absent)  
Ray Moore  
Kevin Bell

VISITORS:

MINUTES

A motion was made by Kevin Bell to approve the minutes from the February 5, 2015 meeting as written. The motion was seconded by Robert Patterson and passed unanimously.

REVIEW THE DEFINITIONS FOR  
CONTAMINATION (HIGH HAZ-  
ARD), HIGH HAZARD, LOW HAZ-  
ARD, AND POLLUTION (LOW  
HAZARD)

The committee reviewed the remaining definitions in Chapter 2 and the following recommendation were made.

A motion was made by Michael Moss to keep the definition for Contamination (High Hazard). The motion was seconded by Kevin Bell and passed unanimously.

A motion was made by Michael Moss to keep the definition for High Hazard and the definition for Low Hazard. The motion was seconded by Robert Patterson and passed unanimously.

A motion was made by Michael Moss to keep the definition for Pollution (Low Hazard). The motion was seconded by Kerry Cramer and passed unanimously.

REVIEW PROPOSED AMEND-

The recommendation for this section was tabled.

## MENTS TO SECTION 314.2.4.1 AND 314.2.4.2

### REVIEW SECTION 607.2.1.2

The committee agreed to not make any recommendations for changes to this new section of the 2015 code.

### REVIEW SECTION 608.7

A motion was made by Kerry Cramer to modify the current amendment by adding a sentence to the end of the paragraph stating "Stop and waste valves shall be installed in accordance with manufacture's recommended installation instructions." The motion was seconded by Kevin Bell and passed unanimously.

## COMPLETE REVIEW OF CHAPTER 6 OF THE 2015 IPC AND CORRE- SPONDING CHAPTERS OF THE 2015 IRC ALONG WITH CURRENT AMENDMENTS

The committee reviewed the 2015 IPC and the current amendment and the following recommendations were made.

The committee discussed the amendment for Section 608.13.9 and 608.16.7 for Chemical dispensers. The decision was tabled until the next meeting.

A motion was made by Michael Moss to keep the current amendment for Section 608.15.3. The motion was seconded by Kerry Cramer and passed unanimously.

A motion was made by Kerry Cramer to modify the current amendment for Section 608.15.4 by separating the amendment into three sections. The motion was seconded by Kevin Bell and passed unanimously.

A motion was made by Michael Moss to keep the current amendment for Section 608.15.4.2. The motion was seconded by Kerry Cramer and passed unanimously.

A motion was made by Kerry Cramer to keep the current amendment for Section 608.16.2. The motion was seconded by Michael Moss and passed unanimously.

A motion was made by Kerry Cramer to delete the current amendment for Section 608.16.3 and add

new amendments to Section 202 for the definitions of essentially nontoxic transfer fluids and essentially toxic transfer fluids. The motion was seconded by Michael Moss and passed unanimously.

A motion was made by Michael Moss to keep the current amendment for Section 608.16.4.1. The motion was seconded by Robert Patterson and passed unanimously.

A motion was made by Kerry Cramer to keep the current amendment for Section 608.16.7. The motion was seconded by Kevin Bell and passed unanimously.

A motion was made by Michael Moss to keep the current amendment for Section 608.16.8. The motion was seconded by Kevin Bell and passed unanimously.

A motion was made by Michael Moss to keep the current amendment for Section 608.16.11. The motion was seconded by Robert Patterson and passed unanimously.

A motion was made by Kerry Cramer to keep the current amendment for Section 608.17. The motion was seconded by Kevin Bell and passed unanimously.

REVIEW PROPOSED AMENDMENT  
FOR SECTION 705.11.2

Review of this proposal was tabled until the next meeting.

REVIEW SECTION 708.1.10

Review of this section was tabled until the next meeting.

The committee discussed House Bill 285.

The meeting adjourned at 11:07.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

April 2, 2015

North Conference Room – 9:00 am  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, Utah

STAFF:

Dan S Jones, Bureau Manager  
Sharon Smalley, Secretary

COMMITTEE MEMBERS:

Kerry Cramer  
Jody Hilton  
Robert Patterson (excused)  
Michael Moss

Nelson Hooton  
Jeffrey Park  
Ray Moore  
Kevin Bell (absent)

VISITORS:

MINUTES

A motion was made by Jody Hilton to approve the minutes from the March 5, 2015 meeting as written. The motion was seconded by Michael Moss and passed unanimously.

Dan Jones updated the committee on what happened during the last legislative session.

REVIEW PROPOSED AMENDMENTS TO SECTION 314.2.4.1 AND 314.2.4.2

The recommendation for this section was tabled.

REVIEW CURRENT AMENDMENTS TO SECTION 608.13.9 AND 608.16.7

The committee discussed the amendment for Section 608.13.9 and 608.16.7 for chemical dispensers. The decision was tabled until the next meeting.

REVIEW OF CHAPTER 7

Jody Hilton gave a report on his review of this chapter. He reported that most of the changes were good as they were mostly changes to make it easier to use without adding any cost.

A motion was made by Kerry Cramer to keep the

current amendment for Section 701.2. The motion was seconded by Jody Hilton and passed unanimously.

REVIEW PROPOSED AMENDMENT  
FOR SECTION 705.11.2

The committee reviewed the proposed amendment for Section 705.11.2. Kerry Cramer felt that the current language should be kept. No motion was made on the proposal.

REVIEW SECTION 708.1.10 and  
708.11.2

No action was taken.

A motion was made by Kerry Cramer to keep the current amendment for Section 712.3.3.1. The motion was seconded by Jeff Park and passed unanimously.

The committee started the review of Chapter 8. Presently there are no current amendment to this chapter.

A motion was made by Jody Hilton to add a new amendment to Section 802.1.1 that would delete the last sentence. The motion was seconded by Kerry Cramer and passed unanimously.

During the review of Chapter 9, the following motions were made.

A motion was made by Jody Hilton to keep the current amendment for Section 903.1. The motion was seconded by Jeff Park and passed unanimously.

A motion was made by Jeff Park to keep the current amendment for Section 903.6. The motion was seconded by Michael Moss and passed unanimously.

A motion was made by Jody Hilton to keep the current amendment for Section 905.4. The motion was seconded by Jeff Park and passed unanimously.

During the review of Chapter 10, the discussion on the current amendment for Section 1002.4 was tabled until the next meeting. Ray Moore will have

wording at the next meeting for the committee to review.

The meeting adjourned at 10:35.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UNIFORM BUILDING CODE COMMISSION  
PLUMBING /HEALTH ADVISORY COMMITTEE  
MEETING

May 7, 2015

North Conference Room – 9:00 am  
Heber M Wells Building  
160 E 300 S  
Salt Lake City, Utah

STAFF:

Sharon Smalley, Secretary

COMMITTEE MEMBERS:

Kerry Cramer

Jody Hilton

Robert Patterson (absent)

Michael Moss

Nelson Hooton

Jeffrey Park

Ray Moore

Kevin Bell (absent)

VISITORS:

MINUTES

A motion was made by Jody Hilton to approve the minutes from the April 2, 2015 meeting as written. The motion was seconded by Michael Moss and passed unanimously.

REVIEW PROPOSED AMENDMENTS TO SECTION 314.2.4.1 AND 314.2.4.2

Ray Moore recommended that no changes be made to this section.

REVIEW CURRENT AMENDMENTS TO SECTIONS 608.13.9 AND 608.16.7

The committee reviewed the current amendment and the proposed amendment. Following the discussion, a motion was made by Jody Hilton to keep the current amendment. The motion was seconded by Kerry Cramer and passed unanimously.

A motion was made by Kerry Cramer to deny the proposed amendment for Section 608.16.7. The motion was seconded by Jody Hilton and passed unanimously.

REVIEW PROPOSED AMENDMENT TO SECTION 705.11.2

A motion was made by Jody Hilton to deny the proposed amendment. The motion was seconded by Kerry Cramer and passed unanimously.

REVIEW SECTION 708.1.10 AND  
708.11.2

The committee reviewed this section of the code. No recommendations were made.

REVIEW CURRENT AMENDMENT  
FOR SECTION 1002.4

Following a review of this amendment a motion was made by Jody Hilton to delete the current amendment. The motion was seconded by Kerry Cramer and passed unanimously.

COMPLETE REVIEW OF 2015 IPC  
AND CURRENT AMENDMENTS

The committee completed their review of the 2015 IPC and the current amendments. The following recommendations were made:

During the review of Section 1106.1, a motion was made by Michael Moss to add an amendment that would be a subsection numbered as 1106.1.1 and stating, "Alternate Methods. Approved alternate storm drain sizing methods may be allowed.". The motion was seconded by Jody Hilton and passed unanimously.

A motion was made by Michael Moss to delete the current amendment for Section 1104.2. The motion was seconded by Jody Hilton and passed unanimously.

A motion was made by Kerry Cramer to keep the current amendment for Section 1109. The motion was seconded by Michael Moss and passed unanimously.

Kerry Cramer will have a proposal for Chapter 13 at the next meeting.

A motion was made by Kerry Cramer to delete Chapter 14 and replace it with the current amendment for Section 1303 and reference it as Section 1401. The motion was seconded by Jody Hilton and passed unanimously.

A motion was made by Michael Moss to change the current amendments to Chapter 14 to amendments to Chapter 15 and delete the current amendment for ASSE 1072. The motion was seconded by Kerry Cramer and passed unanimously.

A motion was made by Ray Moore to make a new amendment to the IBC Section 2902, numbering it

as a new section, 2902.6, using wording from the IPC Section 311, and maintaining the current amendment for Section 311.1 but to also add the words, "See IBC". The motion was seconded Jeff Park and the motion passed with a vote of five to one.

The committee began their review of the 2015 IRC along with the current amendments and the following recommendations were made:

A motion was made by Michael Moss to keep the current amendment for Section P2602.3. The motion was seconded by Jody Hilton and passed unanimously.

A motion was made by Michael Moss to keep the current amendment for Section P2602.4. The motion was seconded by Jeff Park and passed unanimously.

A motion was made by Jody Hilton to modify the current amendment for Section P2801.7 by changing the section number to P2801.8. The motion was seconded by Michael Moss and passed unanimously.

A motion was made by Michael Moss to keep the current amendment for Section P2902.1.1. The motion was seconded by Jeff Park and passed unanimously.

Kerry Cramer will have changes to review at the next meeting for the current amendments to Section 3009.

A motion was made by Michael Moss to keep the current amendment for Section P3103.6. The motion was seconded by Jeff Park and passed unanimously.

A motion was made by Michael Moss to keep the current amendment for Section P3104.1. The motion was seconded by Kerry Cramer and passed unanimously.

A motion was made by Michael Moss to keep the

current amendment for Chapter 44. The motion was seconded by Jody Hilton and passed unanimously.

The meeting adjourned at 11:30.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UTAH  
UNIFORM BUILDING CODE COMMISSION  
STRUCTURAL ADVISORY COMMITTEE  
MEETING

August 7, 2014

Room 402 – 4<sup>th</sup> Floor 3:00  
Heber M Wells Building  
160 East 300 South  
Salt Lake City UT 84111

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

COMMITTEE MEMBERS:

Justin Naser (excused)  
Jerel Newman  
Mark Urry  
Peter McDonough

Michael Buehner  
Josh Blazzard (excused)  
Jerry Thompson (excused)

VISITORS:

MINUTES

A motion was made by Peter McDonough to approve the minutes from the November 7, 2013 meeting as written. The motion was seconded by Michael Buehner and passed unanimously.

REVIEW STRUCTURAL PORTION OF  
2015 IBC AND CURRENT AMENDMENTS

Michael Buehner and Peter McDonough gave a report on their review Chapter 16 and the current amendments for those chapters.

Those present discussed Chapter 16 along with the current amendments for this chapter. During the discussion the following recommendations were made.

A motion was made by Michael Buehner to keep the current amendment for section 1604.5. The motion was seconded by Peter McDonough and passed unanimously.

A motion was made by Michael Buehner to keep all of the current amendments to Section 1608. The motion was seconded by Peter McDonough and passed unanimously.

Peter McDonough left at this point in the meeting so there was not a quorum present.

Those present recommended that the current amendment for section 1613.1.1 be kept and that section 1613.5 be retained and modified by changing the section number to 1613.7.

Mark Urry will report on his review of Chapter 17 for the next meeting.

Dan Jones relayed a request from the Plumbing Advisory Committee that this committee review Section 307.5 of the 2015 IPC and give them a recommendation.

The meeting adjourned at 4:28.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UTAH  
UNIFORM BUILDING CODE COMMISSION  
STRUCTURAL ADVISORY COMMITTEE  
MEETING

September 4, 2014

Room 474 – 4<sup>th</sup> Floor 3:00  
Heber M Wells Building  
160 East 300 South  
Salt Lake City UT 84111

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

COMMITTEE MEMBERS:

|                        |                 |
|------------------------|-----------------|
| Justin Naser (excused) | Michael Buehner |
| Jerel Newman (excused) | Josh Blazzard   |
| Mark Urry              | Jerry Thompson  |
| Peter McDonough        |                 |

VISITORS:

MINUTES

A motion was made by Michael Buehner to approve the minutes from the August 7, 2014 meeting as written. The motion was seconded by Peter McDonough and passed unanimously.

REVIEW SECTION 307.5 OF THE 2015 IPC

Those present reviewed this new section of the plumbing code. A motion was made by Josh Blazzard and seconded by Peter McDonough to relay back to the Plumbing Advisory Committee that this committee has no objections to the new language. The motion passed unanimously.

REVIEW STRUCTURAL PORTION OF  
2015 IBC AND CURRENT AMENDMENTS

Mark Urry gave a report on his review of Chapter 17. Those present discussed the changes to this chapter. There are no current amendments to this chapter and no recommendations were made to propose any new amendments.

Those present volunteered to do the review of the remaining chapters as follows:

Jerry Thompson - Chapter 18 and 26

Page 2 of 2  
Uniform Building Code Commission  
Structural Advisory Committee  
September 4, 2014

Josh Blazzard - Chapters 19 and 25  
Peter McDonough - Chapters 20 and 21  
Michael Buehner - Chapters 22 and 24  
Mark Urry - Chapter 23

At the October meeting, chapters 18 through  
21 will be reviewed.

The meeting adjourned at 4:20

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UTAH  
UNIFORM BUILDING CODE COMMISSION  
STRUCTURAL ADVISORY COMMITTEE  
MEETING

October 2, 2014

Room 475 – 4<sup>th</sup> Floor 3:00  
Heber M Wells Building  
160 East 300 South  
Salt Lake City UT 84111

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

COMMITTEE MEMBERS:

|                        |                 |
|------------------------|-----------------|
| Justin Naser           | Michael Buehner |
| Jerel Newman (excused) | Josh Blazzard   |
| Mark Urry (excused)    | Jerry Thompson  |
| Peter McDonough        |                 |

VISITORS:

|                                     |                                       |
|-------------------------------------|---------------------------------------|
| Jerod Johnson, SEAU                 | Scott Russell, NUCOR Building Systems |
| Marc Maguire, Utah State University |                                       |

MINUTES

A motion was made by Michael Buehner to approve the minutes from the September 4, 2014 meeting as written. The motion was seconded by Josh Blazzard and passed unanimously.

DISCUSS REVIEWING THE CURRENT  
SNOW LOAD AMENDMENTS

Jerod Johnson, Scott Russell and Marc Maguire spoke to the committee in connection with the review of the current snow load amendment. Those present discussed the possibility of having a project funded to do a new study to develop a methodology for snow load calculations. A motion was made by Peter McDonough that this committee recognizes the value of this study and to endorse further development of a snow load study. The motion was seconded by Josh Blazzard. During the discussion, Dan Jones suggested that the motion should also be that a study should be accomplished to update the snow load without endorsement of a specific provider. Both the first and seconded

concurred with the modification. The amended motion passed unanimously. This recommendation will go to the Uniform Building Code Commission and then to the Business and Labor Interim Committee.

Josh Blazzard gave his report on his review of Chapter 19. He reported that he found no significant changes. His recommendation was to not make any new amendments. A recommendation on the current amendments for section 1904.2 and 1905.1.11 was tabled until the next meeting.

Peter McDonough reported on his review of Chapter 20. Following the review a motion was made by Peter McDonough to approve this chapter with no recommendations for amendments. The motion was seconded by Michael Buehner and passed unanimously.

The meeting adjourned at 4:32.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UTAH  
UNIFORM BUILDING CODE COMMISSION  
STRUCTURAL ADVISORY COMMITTEE  
MEETING

December 4, 2014

Room 475 – 4<sup>th</sup> Floor 3:00  
Heber M Wells Building  
160 East 300 South  
Salt Lake City UT 84111

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

COMMITTEE MEMBERS:

|                 |                          |
|-----------------|--------------------------|
| Justin Naser    | Michael Buehner (absent) |
| Jerel Newman    | Josh Blazzard            |
| Mark Urry       | Jerry Thompson           |
| Peter McDonough |                          |

VISITORS:

MINUTES

A motion was made by Peter McDonough to approve the minutes from the October 2, 2014 meeting as written. The motion was seconded by Josh Blazzard and passed unanimously.

REVIEW AMENDMENTS FOR SECTION  
1904.2 AND 1905.1.11

Josh Blazzard passed out a copy of his review of these two amendments. Following a discussion on the proposal, a motion was made by Josh Blazzard to delete the current amendment for Section 1904.2 and to modify the current amendment for Section 1905.1.11 by changing the section number to 1905.1.9, changing the table from 4.2.1 to 19.3.1.1 in two places and deleting F1, F2, and F3. The motion was seconded by Jerel Newman and passed unanimously.

REVIEW CHAPTERS 21 THROUGH 24 OF  
2015 IBC AND CURRENT AMENDMENTS

Mark Urry gave his review of Chapter 23. Following a discussion on his review, a motion was made by Jerry Thompson to keep the current amendment for Section 2306.1.5 and to modify the current amendment for Section 2308.6 by changing the section number to 2308.3.1 and adding the number "3" after the word "exception". The motion was seconded

by Mark Urry and passed unanimously.

Jerry Thompson gave his review of Chapter 18. Following the discussion, a motion was made by Josh Blazzard to keep the current amendments for Section 1807.1.6.4 and Table 1807.1.6.4. The motion was seconded by Mark Urry and passed unanimously.

Peter McDonough gave his review of Chapter 21. Following the discussion on the chapter, a motion was made by Peter McDonough to accept this chapter without any amendments. The motion was seconded by Josh Blazzard and passed unanimously.

Jerel Newman will review Chapters 30, 31 and 33 for the next meeting.

Chapters 22, 24-26 will also be reviewed at the next meeting.

The meeting adjourned at 4:34.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

# MINUTES

## UTAH UNIFORM BUILDING CODE COMMISSION STRUCTURAL ADVISORY COMMITTEE MEETING

January 8, 2015

Room 475 – 4<sup>th</sup> Floor 3:00  
Heber M Wells Building  
160 East 300 South  
Salt Lake City UT 84111

### STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

### COMMITTEE MEMBERS:

|                           |                 |
|---------------------------|-----------------|
| Justin Naser              | Michael Buehner |
| Jerel Newman              | Josh Blazzard   |
| Mark Urry                 | Jerry Thompson  |
| Peter McDonough (excused) |                 |

### VISITORS:

Ross Ford, UHBA

### MINUTES

A motion was made by Jerel Newman to approve the minutes from the December 4, 2014 meeting as written. The motion was seconded by Mark Urry and passed unanimously.

The committee discussed the 2015 IEBC in connection with Chapter 34 no longer being in the 2015 IBC.

At this point in the meeting Mark Urry left.

### REVIEW CHAPTERS 22 AND 24-26 OF THE 2015 IBC AND CURRENT AMENDMENTS

The committee reviewed the changes to Chapter 22. Michael Buehner gave a report on his review. Following the discussion, a motion was made by Jerry Thompson to recommend adoption of the chapter as presented. The motion was seconded by Jerel Newman and passed unanimously.

Michael Buehner gave a report on his review of the changes to Chapter 24. Following a review of the chapter, a motion was made by

Michael Buehner to recommend adoption of Chapter 24 as presented. The motion was seconded by Josh Blazzard and passed unanimously.

Josh Blazzard gave a report on his review of Chapter 25. He pointed out that the current amendment for Section 2506.2.1 needs to be modified by changing the section 1613.8 to 1613.5. A motion was made by Josh Blazzard to recommend approval of the chapter with the modified amendment. The motion was seconded by Jerel Newman and passed unanimously.

Jerel Newman gave a report on Chapter 30, 31 and 33. Following the review of Chapter 30, a motion was made by Jerel Newman to recommend adoption of the chapter as presented. The motion was seconded by Josh Blazzard and passed unanimously.

Following the review of Chapter 31, a motion a motion was made by Jerel Newman to recommend adoption of the chapter as presented. The motion was seconded by Josh Blazzard and passed unanimously.

Following the review of Chapter 33, a motion was made by Jerel Newman to recommend adoption of the chapter as presented. The motion was seconded by Michael Buehner and passed unanimously.

Jerry Thompson gave his review of Chapter 32. A motion was made by Jerry Thompson to recommend adoption of the chapter as presented. The motion was seconded by Jerel Newman and passed unanimously.

Assignments were made for the review of the 2015 IRC as follows:

Chapter 1 Jerry Thompson  
Chapter 3 Josh Blazzard  
Chapter 4 Jerel Newman  
Chapter 5 Michael Buehner

Chapter 6 Mark Urry

Justin Naser will review the 2015 IEBC.

The meeting adjourned at 4:57.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UTAH  
UNIFORM BUILDING CODE COMMISSION  
STRUCTURAL ADVISORY COMMITTEE  
MEETING

February 5, 2015

Room 475 – 4<sup>th</sup> Floor 3:00  
Heber M Wells Building  
160 East 300 South  
Salt Lake City UT 84111

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

COMMITTEE MEMBERS:

Justin Naser  
Jerel Newman  
Mark Urry (absent)  
Peter McDonough

Michael Buehner  
Josh Blazzard (excused)  
Jerry Thompson

VISITORS:

MINUTES

A motion was made by Michael Buehner to approve the minutes from the January 8, 2015 meeting as written. The motion was seconded by Jerel Newman and passed unanimously.

REVIEW REMAINING STRUCTURAL  
PORTION OF 2015 IBC AND CURRENT  
AMENDMENTS

Jerry Thompson gave a report on his review of Chapter 26. A motion was made by Jerry Thompson to recommend approval of Chapter 26 as presented. The motion was seconded by Peter McDonough and passed unanimously.

START REVIEW OF STRUCTURAL  
PORTION OF THE 2015 IRC

Jerry Thompson gave a report on his review of Chapter 1 of the IRC. The following recommendations were made.

A motion was made by Jerry Thompson to modify 15A-1-204(1)(b)(ii)(A) by adding the word "relocation". The motion was seconded by Michael Buehner and passed unanimously.

A motion was made by Jerry Thompson to keep the three current amendments in Chapter 1 for R102, R109, and R114.1. The motion was seconded by Peter McDonough and passed

unanimously.

Jerel Newman gave an overview of his review of Chapter 4. Following the discussion, a motion was made by Jerel Newman to modify the current amendment for R403.1.6 by changing the exception from number 4 to 3 and to keep the current amendment for Section R403.1.6.1. The motion was seconded by Jerry Thompson and passed unanimously.

The meeting adjourned at 4:30.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UTAH  
UNIFORM BUILDING CODE COMMISSION  
STRUCTURAL ADVISORY COMMITTEE  
MEETING

March 5, 2015

Room 474 – 4<sup>th</sup> Floor 3:00  
Heber M Wells Building  
160 East 300 South  
Salt Lake City UT 84111

STAFF:

Sharon Smalley, Board Secretary

COMMITTEE MEMBERS:

Justin Naser

Jerel Newman (excused)

Mark Urry

Peter McDonough

Michael Buehner

Josh Blazzard

Jerry Thompson

VISITORS:

MINUTES

A motion was made by Peter McDonough to approve the minutes from the February 5, 2015 meeting as written. The motion was seconded by Michael Buehner and passed unanimously.

REVIEW REMAINING STRUCTURAL  
PORTION OF THE 2015 IBC AND  
CURRENT AMENDMENTS AND START  
REVIEW OF STRUCTURAL PORTION OF  
2015 IRC

The committee reviewed the structural portion of the 2015 IRC and the following recommendations were made.

Josh Blazzard gave his review of Chapter 3 of the IRC. Following the review, a motion was made by Josh Blazzard to keep the current amendments for Section R301.2(5) and R301.6. The motion was seconded by Mark Urry and passed unanimously.

Michael Buehner gave a review on the changes in Chapter 5. Following his review a motion was made Michael Buehner to delete the current amendment for R501.3. The motion was seconded by Mark Urry and passed unanimously

Mark Urry started his review of Chapter 6. Following his review, a motion was made by

Mark to make a recommendation to accept the chapter as written. The motion was seconded by Michael Buehner and passed unanimously.

The following assignments were made:

Chapter 7 Jerry Thompson  
Chapter 8 Peter McDonough  
Chapter 9 Michael Buehner  
Chapter 10 Mark Urry

The meeting adjourned at 4:40.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

MINUTES

UTAH  
UNIFORM BUILDING CODE COMMISSION  
STRUCTURAL ADVISORY COMMITTEE  
MEETING

May 7, 2015

Room 474 – 4<sup>th</sup> Floor 3:00  
Heber M Wells Building  
160 East 300 South  
Salt Lake City UT 84111

STAFF:

Dan Jones, Bureau Manager  
Sharon Smalley, Board Secretary

COMMITTEE MEMBERS:

|                 |                 |
|-----------------|-----------------|
| Justin Naser    | Michael Buehner |
| Jerel Newman    | Josh Blazzard   |
| Mark Urry       | Jerry Thompson  |
| Peter McDonough |                 |

VISITORS:

Ross Ford, Utah HBA

MINUTES

A motion was made by Josh Blazzard to approve the minutes from the March 5, 2015 meeting as written. The motion was seconded by Jerel Newman and passed unanimously.

REVIEW REMAINING STRUCTURAL  
PORTION OF THE 2015 IRC AND  
CURRENT AMENDMENTS AND START  
REVIEW OF 2015 IEBC

Justin Naser gave his review of the 2015 IEBC and the current amendments in R156-15A-402. Following the discussion the following recommendations were made:

A motion was made by Justin Naser to modify the current amendment for IECC Section 1007.3.1 by deleting the words, "or where such change of occupancy results in a reclassification of a building to a higher hazard category as shown in Table 1012.4; or where a change of a Group M occupancy to a Group A, E, F, I-1, R-1, R-2, or R-4 occupancy with two-thirds or more of the floors involved in Level 3 alteration work" and change exception "5" to exception "4". The motion was seconded by Michael Buhner and passed unanimously.

A motion was made by Justin Naser to keep the current amendments numbers 1,2,3,6, and 7. The motion was seconded by Jerel Newman and passed unanimously.

A motion was made by Justin Naser to add a new amendment for Section 403.5 that would add the words " or appendages such as cornices, spires, towers, tanks, signs, statuary, ect," and delete the word "parapet", delete the current amendment for 706.2.1, and add a new amendment for Section 707.3.1. The motion was seconded by Josh Blazzard and passed unanimously.

A motion was made by Justin Naser to modify the current amendment for Section 1007.3.1 by deleting the words "or where such change of occupancy results in a reclassification of a building to a higher hazard category as shown in Table 1012.4; or where a change of a Group M occupancy to a Group A, E, F, I-1, R-1, R-2, or R-4 occupancy with two-thirds or more of the floors involved in Level 3 alteration work;" and changing the Exceptions from 5 to 4. The motion was seconded by Michael Buehner and passed unanimously.

The committee discussed how to apply the 2015 IEBC since Chapter 34 has been deleted from the 2015 IBC. A motion was made by Josh Blazzard to make a recommendation that the 2015 IEBC be moved from an approved code to an adopted code with the amendments. The motion was seconded by Michael Buehner and passed unanimously.

A motion was made Josh Blazzard that if the recommendation to change the IEBC from an approved code to an adopted code does not go through, that the current amendments to R156-15A-401 (2), (3), and (4) and the amendments in R156-15A-402 be deleted. The motion was seconded by Peter McDonough and passed unanimously.

The meeting adjourned at 5:00.

*Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.*

IBC AMENDMENT STATUS LOG

PENDING

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| Section to Amend                      | Proponent & Agency      | Approved/Denied by Committee | Commission Appr/Deny for Hearing | Published | Public Hearing | Commission Appr/Deny Amendment | Effective Date |
|---------------------------------------|-------------------------|------------------------------|----------------------------------|-----------|----------------|--------------------------------|----------------|
| 307.1                                 | Architectural - Unified | 10-7-14                      |                                  |           |                |                                |                |
| 308.2                                 | Architectural - Unified | 10-7-14                      |                                  |           |                |                                |                |
| (F)908.7                              | Scott Marsell           | 2-3-15 approved              |                                  |           |                |                                |                |
| Wasatch Fire District local amendment | Wasatch County          | 2-3-15 tabled                |                                  |           |                |                                |                |
| 907.2.3                               | Deanne Mousley          | 2-3-15 approved              |                                  |           |                |                                |                |
|                                       |                         |                              |                                  |           |                |                                |                |
|                                       |                         |                              |                                  |           |                |                                |                |
|                                       |                         |                              |                                  |           |                |                                |                |
|                                       |                         |                              |                                  |           |                |                                |                |
|                                       |                         |                              |                                  |           |                |                                |                |
|                                       |                         |                              |                                  |           |                |                                |                |
|                                       |                         |                              |                                  |           |                |                                |                |

IRC AMENDMENT STATUS LOG  
PENDING

| Section to Amend | Proponent & Agency   | Approved/Denied by Committee | Commission Appr/Deny for Hearing | Published | Public Hearing | Commission Appr/Deny Amendment |
|------------------|----------------------|------------------------------|----------------------------------|-----------|----------------|--------------------------------|
| E3901.9          | Electrical Committee | 4-9-15                       |                                  |           |                |                                |
|                  |                      |                              |                                  |           |                |                                |
|                  |                      |                              |                                  |           |                |                                |
|                  |                      |                              |                                  |           |                |                                |

**IPC AMENDMENT STATUS LOG  
PENDING**

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| Section to Amend               | Proponent & Agency                 | Approved/Denied by Committee                                   | Commission Appr/Deny for Hearing | PUBLIC HEARING | BUSINES S & LABOR INTERIM |  | Effective Date |
|--------------------------------|------------------------------------|--|----------------------------------|----------------|---------------------------|--|----------------|
| IPC 605.2<br>IRC 2905.2        | Murray City<br>Gilbert<br>Gonzales | 5-1-14 denied  | 6-11-14<br>denied                |                |                           |  |                |
| 312                            | Jeff Park                          | 5-1-14 approved  | 6-11-14<br>approved              | 9-10-14        | 10-15-14                  |  |                |
| 307.5                          |                                    | 8-7-14 committee<br>approved the<br>deletion of new<br>section |                                  |                |                           |  |                |
| 403.1                          |                                    | 9-4-14 modify  |                                  |                |                           |  |                |
| 412.5                          |                                    | 9-4-14 modify  |                                  |                |                           |  |                |
| 502.4                          |                                    | 9-4-14 modify  |                                  |                |                           |  |                |
| 608.1.2 & 608.1.3              | Michael Moss                       | 12-4-14<br>approved  |                                  |                |                           |  |                |
| 314.2.4.1 and .2               | Ray Moore                          | Tabled<br>No changes<br>recommended 5-<br>7-15                 |                                  |                |                           |  |                |
| 1002.1, .3 and .4<br>15A-3-314 | Plumb-Tech<br>Design               | 1-8-15 tabled<br>2-5-15 denied                                 |                                  |                |                           |  |                |
| 705.11.2                       | Kevin Bell                         | 5-7-15 denied<br>Stay with current<br>wording                  |                                  |                |                           |  |                |
| 802.1.1                        | Committee                          | 4-2-15 approved  |                                  |                |                           |  |                |
| 608.16.7                       | Ron Lord                           | Denied 5-7-15  |                                  |                |                           |  |                |



NEC AMENDMENT STATUS LOG

PENDING

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| Article to Amend | Proponent & Agency | Approved/Denied by Committee | Commission Appr/Deny for Hearing | Published | Public Hearing | Commission Appr/Deny Amendment | Effective Date |
|------------------|--------------------|------------------------------|----------------------------------|-----------|----------------|--------------------------------|----------------|
|                  |                    |                              |                                  |           |                |                                |                |
|                  |                    |                              |                                  |           |                |                                |                |
|                  |                    |                              |                                  |           |                |                                |                |
|                  |                    |                              |                                  |           |                |                                |                |

IEBC AMENDMENT STATUS LOG  
PENDING

| Section to Amend                | Proponent & Agency            | Approved/Denied by Committee | Commission Appr/Deny for Hearing | Published | Public Hearing | Commission Appr/Deny Amendment | Effective Date |
|---------------------------------|-------------------------------|------------------------------|----------------------------------|-----------|----------------|--------------------------------|----------------|
| Section 202 - existing building | Structural Advisory Committee | Approved 5-7-15              |                                  |           |                |                                |                |
| 301.1                           | Structural Advisory Committee | Approved 5-7-15              |                                  |           |                |                                |                |
| 403.5                           | Structural Advisory Committee | Approved 5-7-15              |                                  |           |                |                                |                |
| 705.1                           | Structural Advisory Committee | Approved 5-7-15              |                                  |           |                |                                |                |
| 707.3.1                         | Structural Advisory Committee | Approved 5-7-15              |                                  |           |                |                                |                |
| 1007.3.1                        | Structural Advisory Committee | Approved 5-7-15              |                                  |           |                |                                |                |
| 1012.7.3                        | Structural Advisory Committee | Approved 5-7-15              |                                  |           |                |                                |                |
| 1012.8.2                        | Structural Advisory Committee | Approved 5-7-15              |                                  |           |                |                                |                |

**FY July 1, 2014 - June 30, 2015UBC  
COMBINED BALANCE SHEET & INCOME STATEMENT  
For April 1-30, 2015**

| REVENUE   | BUDGET                | RECEIVED            | ACTUAL YTD           |                      |
|---|-----------------------|---------------------|----------------------|----------------------|
| Surcharge Fees Projected (estimated only)                 | \$372,484.50          | \$56,706.58         | \$384,487.94         |                      |
| Carryover Credit from Previous Years (after all payments) | \$975,909.00          |                     |                      |                      |
| <b>Total</b>  | <b>\$1,348,393.50</b> | <b>\$56,706.58</b>  | <b>\$384,487.94</b>  |                      |
| ADMINISTRATIVE ENCUMBRANCES                               | BUDGET                | PAID                | ACTUAL YTD           | BALANCE              |
| Salary and Benefits                                       | \$ 63,705.86          | \$ 4,520.31         | \$ 48,670.30         | \$ 15,035.56         |
| Communication Services                                    | \$ 500.00             | \$ 43.22            | \$ 374.27            | \$ 125.73            |
| Miscellaneous/Office Supplies & Printing/Library          | \$ 50.00              | \$ -                | \$ -                 | \$ 50.00             |
| <b>Total</b>  | <b>\$ 64,255.86</b>   | <b>\$ 4,563.51</b>  | <b>\$ 49,044.57</b>  | <b>\$ 15,211.29</b>  |
| EDUCATIONAL GRANTS TO SCHOOLS                             |                       | PAID                | ACTUAL YTD           | BALANCE              |
| Bridgerland Applied Tech College                          | \$ 25,400.00          | \$ -                | \$ 12,927.68         | \$ 12,472.32         |
| Davis Applied Tech College                                | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| Dixie State College (Dixie Applied Tech College)          | \$ 10,380.00          | \$ -                | \$ 10,179.74         | \$ 200.26            |
| Salt Lake Community College                               | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| Southwest Applied Technology College                      | \$ 9,120.00           | \$ -                | \$ 2,400.00          | \$ 6,720.00          |
| Uintah Basin ATC  | \$ 7,200.00           | \$ -                | \$ 4,115.26          | \$ 3,084.74          |
| Utah Electrical JATC/IBEW                                 | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| <b>TOTAL</b>  | <b>\$ 52,100.00</b>   | <b>\$ -</b>         | <b>\$ 29,622.68</b>  | <b>\$ 22,477.32</b>  |
| ASSOCIATION FUNDING GRANTS                                |                       | PAID                | ACTUAL YTD           |                      |
| ACI Intermountain Chapter                                 | \$ 3,732.00           | \$ -                | \$ -                 | \$ 3,732.00          |
| AIA Utah Chapter  | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| ASHRAE  | \$ 13,975.00          | \$ -                | \$ -                 | \$ 13,975.00         |
| Associated General Contractors - Utah / AGC-Utah          | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| Associated Builders & Contractors of Utah                 | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| Beehive Chapter ICC                                       | \$ 23,500.00          | \$ -                | \$ 15,120.00         | \$ 8,380.00          |
| Bonneville Chapter ICC                                    | \$ 48,296.69          | \$ -                | \$ 32,067.73         | \$ 16,228.96         |
| Construction Specifications Institute Inc / CSI           | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| Fire Marshal's Association of Utah                        | \$ 5,600.00           | \$ -                | \$ -                 | \$ 5,600.00          |
| IEC of Utah (Independent Electrical Contractors)          | \$ 29,140.00          | \$ -                | \$ 18,222.80         | \$ 10,917.20         |
| Iron County Home Builders Association                     | \$ 8,300.00           | \$ -                | \$ 3,338.82          | \$ 4,961.18          |
| Northern Utah Building Inspectors                         | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| Park City Area Home Builders Association/PCAHBA           | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| Rocky Mountain Gas Association                            | \$ 43,825.00          | \$ -                | \$ 10,873.35         | \$ 32,951.65         |
| Salt Lake Home Builders Association / SLHBA               | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| SEAU (Structural Engineers Association)                   | \$ 21,000.00          | \$ -                | \$ -                 | \$ 21,000.00         |
| Southern Utah Home Builders Association / SUHBA           | \$ 24,000.00          | \$ 14,423.99        | \$ 15,110.57         | \$ 8,889.43          |
| Southern Utah Division IAEI                               | \$ 5,900.00           | \$ -                | \$ 5,874.14          | \$ 25.86             |
| UAPMO   | \$ 27,650.00          | \$ -                | \$ 11,877.52         | \$ 15,772.48         |
| Utah Chapter IAEI   | \$ 24,500.00          | \$ -                | \$ 5,241.00          | \$ 19,259.00         |
| Utah Chapter ICC  | \$ 106,596.00         | \$ -                | \$ 74,377.00         | \$ 32,219.00         |
| Utah Construction Suppliers Association                   | \$ 7,500.00           | \$ -                | \$ -                 | \$ 7,500.00          |
| Utah Plumbing & Heating Contractors Association           | \$ 10,500.00          | \$ -                | \$ -                 | \$ 10,500.00         |
| Utah Homebuilders Association                             | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| Utah Division of Occupational and Professional Licensing  | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| Utah Valley Homebuilders Association                      | \$ -                  | \$ -                | \$ -                 | \$ -                 |
| <b>TOTAL</b>  | <b>\$ 404,014.69</b>  | <b>\$ 14,423.99</b> | <b>\$ 192,102.93</b> | <b>\$ 211,911.76</b> |
| <b>TOTAL ENCUMBRANCES</b>                                 | <b>\$ 520,370.55</b>  | <b>\$ 18,987.50</b> | <b>\$ 270,770.18</b> | <b>\$ 249,600.37</b> |
| REVENUES (LESS ACTUAL EXPENDITURES)                       |                       | PAID                | ACTUAL YTD           |                      |
| Total Revenue (Surcharges plus carryovers)                |                       |                     | \$ 1,360,396.94      |                      |
| Less Actual Expenditures                                  |                       |                     | \$ 270,770.18        |                      |
| Less Approved Unpaid Encumbrances                         |                       |                     | \$ 249,600.37        |                      |
| <b>TOTAL RESERVES</b>                                     |                       |                     | <b>\$ 840,026.39</b> |                      |

**15A-2-101. Title -- Adoption of code.**

- (1) This chapter is known as the "Adoption of State Construction Code."
- (2) In accordance with Chapter 1, Part 2, State Construction Code Administration Act, the Legislature repeals the State Construction Code in effect on July 1, 2010, and adopts the following as the State Construction Code:
  - (a) this chapter;
  - (b) Chapter 3, Statewide Amendments Incorporated as Part of State Construction Code; and
  - (c) Chapter 4, Local Amendments Incorporated as Part of State Construction Code.

Enacted by Chapter 14, 2011 General Session

**15A-2-102. Definitions.**

As used in this chapter and Chapter 3, Statewide Amendments Incorporated as Part of State Construction Code, and Chapter 4, Local Amendments Incorporated as Part of State Construction Code:

- (1) "HUD Code" means the Federal Manufactured Housing Construction and Safety Standards Act, as issued by the Department of Housing and Urban Development and published in 24 C.F.R. Parts 3280 and 3282 (as revised April 1, 1990).
- (2) "IBC" means the edition of the International Building Code adopted under Section 15A-2-103.
- (3) "IECC" means the edition of the International Energy Conservation Code adopted under Section 15A-2-103.
- (4) "IFGC" means the edition of the International Fuel Gas Code adopted under Section 15A-2-103.
- (5) "IMC" means the edition of the International Mechanical Code adopted under Section 15A-2-103.
- (6) "IPC" means the edition of the International Plumbing Code adopted under Section 15A-2-103.
- (7) "IRC" means the edition of the International Residential Code adopted under Section 15A-2-103.
- (8) "NEC" means the edition of the National Electrical Code adopted under Section 15A-2-103.
- (9) "UWUI" means the edition of the Utah Wildland Urban Interface Code adopted under Section 15A-2-103.
- (10) "IEBC" means the edition of the International Existing Building Code adopted under Section 15A-2-103.

Amended by Chapter 189, 2014 General Session

**15A-2-103. Specific editions adopted of construction code of a nationally recognized code authority.**

- (1) Subject to the other provisions of this part, the following construction codes are incorporated by reference, and together with the amendments specified in Chapter 3, Statewide Amendments to International Plumbing Code, and Chapter 4, Local Amendments Incorporated as Part of State Construction Code, are the

construction standards to be applied to building construction, alteration, remodeling, and repair, and in the regulation of building construction, alteration, remodeling, and repair in the state:

- (a) the ~~2012~~ 2015 edition of the International Building Code, including Appendix J, issued by the International Code Council;
  - (b) the ~~2012~~ 2015 edition of the International Residential Code, issued by the International Code Council;
  - (c) the ~~2012~~ 2015 edition of the International Plumbing Code, issued by the International Code Council;
  - (d) the ~~2012~~ 2015 edition of the International Mechanical Code, issued by the International Code Council;
  - (e) the ~~2012~~ 2015 edition of the International Fuel Gas Code, issued by the International Code Council;
  - (f) the 2011 edition of the National Electrical Code, issued by the National Fire Protection Association;
  - (g) the ~~2012~~ 2015 edition of the International Energy Conservation Code, issued by the International Code Council;
  - (h) the 2015 edition of the International Existing Building Code, issued by the International Code Council;
  - ~~(h)~~ (i) subject to Subsection 15A-2-104(2), the HUD Code;
  - ~~(i)~~ (j) subject to Subsection 15A-2-104(1), Appendix E of the ~~2012~~ 2015 edition of the International Residential Code, issued by the International Code Council; and
  - ~~(j)~~ (k) subject to Subsection 15A-2-104(1), the 2005 edition of the NFPA 225 Model Manufactured Home Installation Standard, issued by the National Fire Protection Association.
- (2) Consistent with Title 65A, Chapter 8, Management of Forest Lands and Fire Control, the Legislature adopts the 2006 edition of the Utah Wildland Urban Interface Code, issued by the International Code Council, with the alternatives or amendments approved by the Utah Division of Forestry, as a construction code that may be adopted by a local compliance agency by local ordinance or other similar action as a local amendment to the codes listed in this section.

Amended by Chapter 279, 2013 General Session

Amended by Chapter 297, 2013 General Session

#### **15A-2-104. Installation standards for manufactured housing.**

- (1) The following are the installation standards for manufactured housing for new installations or for existing manufactured or mobile homes that are subject to relocation, building alteration, remodeling, or rehabilitation in the state:
- (a) The manufacturer's installation instruction for the model being installed is the primary standard.
  - (b) If the manufacturer's installation instruction for the model being installed is not available or is incomplete, the following standards apply:
    - (i) Appendix E of the ~~2012~~ 2015 edition of the IRC, as issued by the International Code Council for installations defined in Section AE101 of Appendix E; or

- (ii) if an installation is beyond the scope of the ~~2012~~ 2015 edition of the IRC as defined in Section AE101 of Appendix E, the 2005 edition of the NFPA 225 Model Manufactured Home Installation Standard, issued by the National Fire Protection Association.
  - (c) A manufacturer, dealer, or homeowner is permitted to design for unusual installation of a manufactured home not provided for in the manufacturer's standard installation instruction, Appendix E of the ~~2012~~ 2015 edition of the IRC, or the 2005 edition of the NFPA 225, if the design is approved in writing by a professional engineer or architect licensed in Utah.
  - (d) For a mobile home built before June 15, 1976, the mobile home shall also comply with the additional installation and safety requirements specified in Chapter 3, Part 8, Installation and Safety Requirements for Mobile Homes Built Before June 15, 1976.
- (2) Pursuant to the HUD Code Section 604(d), a manufactured home may be installed in the state that does not meet the local snow load requirements as specified in Chapter 3, Part 2, Statewide Amendments to International Residential Code, except that the manufactured home shall have a protective structure built over the home that meets the IRC and the snow load requirements under Chapter 3, Part 2, Statewide Amendments to International Residential Code.

Amended by Chapter 189, 2014 General Session

**15A-2-105. Scope of application.**

- (1) To the extent that a construction code adopted under Section 15A-2-103 establishes a local administrative function or establishes a method of appeal which pursuant to Section 15A-1-207 is designated to be established by the compliance agency:
  - (a) that provision of the construction code is not included in the State Construction Code; and
  - (b) a compliance agency may establish provisions to establish a local administrative function or a method of appeal.
- (2) (a) To the extent that a construction code adopted under Subsection (1) establishes a provision, standard, or reference to another code that by state statute is designated to be established or administered by another state agency, or a local city, town, or county jurisdiction:
  - (i) that provision of the construction code is not included in the State Construction Code; and
  - (ii) the state agency or local government has authority over that provision of the construction code.
- (b) Provisions excluded under this Subsection (2) include:
  - (i) the International Property Maintenance Code;
  - (ii) the International Private Sewage Disposal Code, authority over which is reserved to the Department of Health and the Department of Environmental Quality;
  - (iii) the International Fire Code, authority over which is reserved to the board, pursuant to Section 15A-1-403;

- (iv) a day care provision that is in conflict with Title 26, Chapter 39, Utah Child Care Licensing Act, authority over which is designated to the Utah Department of Health; and
  - (v) a wildland urban interface provision that goes beyond the authority under Section 15A-1-204, for the State Construction Code, authority over which is designated to the Utah Division of Forestry or to a local compliance agency.
- (3) If a construction code adopted under Subsection 15A-2-103(1) establishes a provision that exceeds the scope described in Chapter 1, Part 2, State Construction Code Administration Act, to the extent the scope is exceeded, the provision is not included in the State Construction Code.

Enacted by Chapter 14, 2011 General Session

**15A-3-101. General provision.**

The amendments in this part are adopted as amendments to the IBC to be applicable statewide.

Enacted by Chapter 14, 2011 General Session

**15A-3-102. Amendments to Chapters 1 through 3 of IBC.**

- (1) IBC, Section 106, is deleted.
- (2) (a) In IBC, Section 110, a new section is added as follows: "110.3.5.1, Weather-resistant exterior wall envelope. An inspection shall be made of the weather-resistant exterior wall envelope as required by Section 1403.2, and flashing as required by Section 1405.4 to prevent water from entering the weather-resistive barrier."
- (b) ~~The remaining sections of IBC, Section 110, are renumbered as follows: 110.3.6, Lath or gypsum board inspection; 110.3.7, Fire and smoke-resistant penetrations; 110.3.8, Energy efficiency inspections; 110.3.9, Other inspections; 110.3.10, Special inspections; and 110.3.11, Final inspection.~~
- (3) IBC, Section 115.1, is deleted and replaced with the following: "115.1 Authority. Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or other pertinent laws or ordinances or is dangerous or unsafe, the building official is authorized to issue a stop work order."
- (4) In IBC, Section 202, the following definition is added for Ambulatory Surgical Center: "AMBULATORY SURGICAL CENTER. A building or portion of a building licensed by the Utah Department of Health where procedures are performed that may render patients incapable of self preservation where care is less than 24 hours. See Utah Administrative Code R432-13."
- (5) In IBC, Section 202, the definition for Foster Care Facilities is modified by changing the word "Foster" to "Child."
- (6) In IBC, Section 202, the definition for "[F]Record Drawings" is modified by deleting the words "a fire alarm system" and replacing them with "any fire protection system".
- (7) In IBC, Section 202, the following definition is added for Residential

Treatment/Support Assisted Living Facility: "RESIDENTIAL TREATMENT/SUPPORT ASSISTED LIVING FACILITY. See Section 308.1.2."

- (8) In IBC, Section 202, the following definition is added for Type I Assisted Living Facility: "TYPE I ASSISTED LIVING FACILITY. See Section 308.1.2."
- (9) In IBC, Section 202, the following definition is added for Type II Assisted Living Facility: "TYPE II ASSISTED LIVING FACILITY. See Section 308.1.2."
- (10) ~~In the list in IBC, Section 304.1, the following words are added after the words "Ambulatory care facilities": "where four or more care recipients are rendered incapable of self preservation."~~
- (11) (10) In IBC, Section 305.2, the words "child care centers," are inserted after the word "supervision," and the following sentence is added at the end of the paragraph: "See Section ~~425~~ 427 for special requirements for Day Care."
- (12) (11) In IBC, Section 305.2.2 and 305.2.3, the word "five" is deleted and replaced with the word "four" in both places.
- (13) (12) A new IBC Section 305.2.4 is added as follows: "305.2.4 Child Day Care -- Residential Certificate or a Family License. Areas used for child day care purposes with a Residential Certificate R430-50 or a Family License, as defined in Utah Administrative Code, R430-90, Licensed Family Child Care, may be located in a Group R-2 or R-3 occupancy as provided in Section 310.5 or shall comply with the International Residential Code in accordance with Section R101.2."
- (14) (13) A new IBC Section 305.2.5 is added as follows: "305.2.5 Child Care Centers. Areas used for Hourly Child Care Centers, as defined in Utah Administrative Code, R430-60, Child Care Center as defined in Utah Administrative Code, R430-100, or Out of School Time Programs, as defined in Utah Administrative Code, R430-70, may be classified as accessory occupancies."
- (15) In IBC, Table 307.1(1), footnote "d" is added to the row for Consumer fireworks in the column titled STORAGE - Solid Pounds (cubic feet).
- (16) In IBC, Section 308.2, the word "FOSTER" is deleted and replace with "CHILD".
- (17) (16) A new IBC Section 308.2.1 is added as follows: "308.2.1 Assisted living facilities and related occupancies. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

TYPE I ASSISTED LIVING FACILITY. A residential facility licensed by the Utah Department of Health that provides a protected living arrangement for ambulatory, non-restrained persons who are capable of achieving mobility sufficient to exit the facility without the assistance of another person. Occupancies. Limited capacity, type I assisted living facilities with two to five residents shall be classified as R-3 occupancies. Small, type I assisted living facilities with six to sixteen residents shall be classified as R-4 occupancies. Large, type I assisted living facilities with over sixteen residents shall be classified as I-1 occupancies.

TYPE II ASSISTED LIVING FACILITY. A residential facility licensed by the Utah Department of Health that provides an array of coordinated supportive personal and health care services to residents who meet the definition of semi-independent.

Semi-Independent. A person who is:

- A. Physically disabled but able to direct his or her own care; or
- B. Cognitively impaired or physically disabled but able to evacuate from the facility with the physical assistance of one person.

Occupancies. Limited capacity, type II assisted living facilities with two to five residents shall be classified as R-4 occupancies. Small, type II assisted living facilities with six to sixteen residents shall be classified as I-1 occupancies. Large, type II assisted living facilities with over sixteen residents shall be classified as I-2 occupancies.

RESIDENTIAL TREATMENT/SUPPORT ASSISTED LIVING FACILITY. A residential treatment/support assisted living facility which creates a group living environment for four or more residents licensed by the Utah Department of Human Services, and provides a protected living arrangement for ambulatory, non-restrained persons who are capable of achieving mobility sufficient to exit the facility without the physical assistance of another person."

- (16) (17) In IBC, Section 308.3, the words "(see Section 308.2.1)" are added after the words "assisted living facilities".
- (17) (18) In IBC, Section 308.3.14, all of the words after the first International Residential Code are deleted.
- (18) (19) In IBC, Section 308.4, the following changes are made:
  - (a) The words "five persons" are deleted and replaced with the words "three persons."
  - (b) The words "foster care facilities" are deleted and replaced with "child care facilities."
  - (c) The words "(both intermediate care facilities and skilled nursing facilities)" are added after "nursing homes."
  - (d) ~~The words "Ambulatory Surgical Centers with five or more operating rooms" are added to the list.~~
- (19) (20) In IBC, Section 308.4.12, the word "five" is deleted and replaced with the word "three" in both places.
- (20) (21) In IBC, Section 308.6, the word "five" is deleted and replaced with the word "four".
- (21) (22) In IBC, Section 308.6.1, the following changes are made:
  - (a) The word "five" is deleted and replaced with the word "four".
  - (b) The words "2 ½ years or less of age" are deleted and replaced with "under the age of two".
  - (c) The following sentence is added at the end: "See Section ~~425~~ 427 for special requirements for Day Care."
- (22) (23) In IBC, Sections 308.6.3 and 308.6.4, the word "five" is deleted and replaced with the word "four" in both places and the following sentence is added at the end: "See Section ~~425~~ 427 for special requirements for Day Care."
- (23) (24) In IBC, Section 310.5, the words "and single family dwellings complying with the IRC" are added after "Residential occupancies".
- (24) (25) In IBC, Section 310.5.1, the words "other than Child Care" are inserted after

the word "dwelling" in the first sentence and the following sentence is added at the end: "See Section ~~425~~ 427 for special requirements for Child Day Care."

(~~25~~) (26) A new IBC Section ~~310.5.2~~ 310.5.3 is added as follows: "~~310.5.2~~ 310.5.3 Child Care. Areas used for child care purposes may be located in a residential dwelling unit under all of the following conditions and Section ~~425~~ 427:

1. Compliance with Utah Administrative Code, R710-8, Day Care Rules, as enacted under the authority of the Utah Fire Prevention Board.
2. Use is approved by the Utah Department of Health, as enacted under the authority of the Utah Code, Title 26, Chapter 39, Utah Child Care Licensing Act, and in any of the following categories:
  - a. Utah Administrative Code, R430-50, Residential Certificate Child Care.
  - b. Utah Administrative Code, R430-90, Licensed Family Child Care.
3. Compliance with all zoning regulations of the local regulator."

(~~26~~) (27) In IBC, Section 310.6, the words "(see Section 308.2.1)" are added after "assisted living facilities".

Amended by Chapter 297, 2013 General Session

### **15A-3-103. Amendments to Chapters 4 through 6 of IBC.**

(1) IBC Section 403.5.5 is deleted.

(~~2~~) ~~IBC Section (F)406.5.8 is deleted and replaced with the following:~~

~~"(F)406.5.8 Standpipe system. An open parking garage shall be equipped with an approved Class I manual standpipe system when fire department access is not provided for firefighting operations to within 150 feet of all portions of the open parking garage as measured from the approved fire department vehicle access.~~

~~Exception: Open parking garages equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a standpipe system is not required by Section 905.3.1."~~

(~~3~~) ~~A new IBC Section (F)406.5.8.1 is added as follows: "(F)406.5.8.1 Installation requirements. Class I manual standpipe shall be designed and installed in accordance with Section 905 and NFPA 14. Class I manual standpipe shall be accessible throughout the parking garage such that all portions of the parking structure are protected within 150 feet of a hose connection."~~

(4) (2) In IBC, Section 422.2, a new paragraph is added as follows: "422.2 Separations: Ambulatory care facilities licensed by the Utah Department of Health shall be separated from adjacent tenants with a fire ~~barrier~~ partition having a minimum one hour fire-resistance rating. Any level below the level of exit discharge shall be separated from the level of exit discharge by a horizontal assembly having a minimum one hour fire-resistance rating.

Exception: A fire barrier is not required to separate the level of exit discharge when:

1. Such levels are under the control of the Ambulatory Care Facility.
2. Any hazardous spaces are separated by horizontal assembly having a minimum one hour fire-resistance rating."

(~~5~~) (3) A new IBC Section ~~425~~ 427, Day Care, is added as follows:

- "~~425.1~~ 427.1 Detailed Requirements. In addition to the occupancy and construction requirements in this code, the additional provisions of this section shall apply to all Day Care in accordance with Utah Administrative Code R710-8 Day Care Rules.
- ~~425.2~~ 427.2 Definitions.
- ~~425.2.1~~ 427.2.1 Authority Having Jurisdiction (AHJ): State Fire Marshal, his duly authorized deputies, or the local fire enforcement authority code official.
- ~~425.2.2~~ 427.2.2 Day Care Facility: Any building or structure occupied by clients of any age who receive custodial care for less than 24 hours by individuals other than parents, guardians, relatives by blood, marriage or adoption.
- ~~425.2.3~~ 427.2.3 Day Care Center: Providing care for five or more clients in a place other than the home of the person cared for. This would also include Child Care Centers, Out of School Time or Hourly Child Care Centers licensed by the Department of Health.
- ~~425.2.4~~ 427.2.4 Family Day Care: Providing care for clients listed in the following two groups:
- ~~425.2.4.1~~ 427.2.4.1 Type 1: Services provided for five to eight clients in a home. This would also include a home that is certified by the Department of Health as Residential Certificate Child Care or licensed as Family Child Care.
- ~~425.2.4.2~~ 427.2.4.2 Type 2: Services provided for nine to sixteen clients in a home with sufficient staffing. This would also include a home that is licensed by the Department of Health as Family Child Care.
- ~~425.2.5~~ 427.2.5 R710-8: Utah Administrative Code, R710-8, Day Care Rules, as enacted under the authority of the Utah Fire Prevention Board.
- ~~425.3.~~ 427.3 Family Day Care.
- ~~425.3.1~~ 427.3.1 Family Day Care units shall have on each floor occupied by clients, two separate means of egress, arranged so that if one is blocked the other will be available.
- ~~425.3.2~~ 427.3.2 Family Day Care units that are located in the basement or on the second story shall be provided with two means of egress, one of which shall discharge directly to the outside.
- ~~425.3.2.1~~ 427.3.2.1 Residential Certificate Child Care and Licensed Family Child Care with five to eight clients in a home, located on the ground level or in a basement, may use an emergency escape or rescue window as allowed in IFC, Chapter 10, Section ~~1029~~ 1030.
- ~~425.3.3~~ 427.3.3 Family Day Care units shall not be located above the second story.
- ~~425.3.4~~ 427.3.4 In Family Day Care units, clients under the age of two shall not be located above or below the first story.
- ~~425.3.4.1~~ 427.3.4.1 Clients under the age of two may be housed above or below the first story where there is at least one exit that leads directly to the outside and complies with IFC, Section ~~1009~~ 1011 or Section ~~1010~~ or 1012 Section ~~1026~~ 1027.
- ~~425.3.5~~ 427.3.5 Family Day Care units located in split entry/split level type homes in which stairs to the lower level and upper level are equal or nearly equal, may have clients housed on both levels when approved by the AHJ.

425.3.6 427.3.6 Family Day Care units shall have a portable fire extinguisher on each level occupied by clients, which shall have a classification of not less than 2A:10BC, and shall be serviced in accordance with NFPA, Standard 10, Standard for Portable Fire Extinguishers.

425.3.7 427.3.7 Family Day Care units shall have single station smoke detectors in good operating condition on each level occupied by clients. Battery operated smoke detectors shall be permitted if the facility demonstrates testing, maintenance, and battery replacement to insure continued operation of the smoke detectors.

425.3.8 427.3.8 Rooms in Family Day Care units that are provided for clients to sleep or nap, shall have at least one window or door approved for emergency escape.

425.3.9 427.3.9 Fire drills shall be conducted in Family Day Care units quarterly and shall include the complete evacuation from the building of all clients and staff. At least annually, in Type I Family Day Care units, the fire drill shall include the actual evacuation using the escape or rescue window, if one is used as a substitute for one of the required means of egress.

425.4 427.4 Day Care Centers.

425.4.1 427.4.1 Day Care Centers shall comply with either I-4 requirements or E requirements of the IBC, whichever is applicable for the type of Day Care Center.

425.4.2 427.4.2 Emergency Evacuation Drills shall be completed as required in IFC, Chapter 4, Section 405.

425.4.3 427.4.3 Location at grade. Group E child day care centers shall be located at the level of exit discharge.

425.4.3.1 427.4.3.1 Child day care spaces for children over the age of 24 months may be located on the second floor of buildings equipped with automatic fire protection throughout and an automatic fire alarm system.

425.4.4 427.4.4 Egress. All Group E child day care spaces with an occupant load of more than 10 shall have a second means of egress. If the second means of egress is not an exit door leading directly to the exterior, the room shall have an emergency escape and rescue window complying with Section ~~1029~~ 1030.

425.4.5 427.4.5 All Group E Child Day Care Centers shall comply with Utah Administrative Code, R430-100 Child Care Centers, R430-60 Hourly Child Care Centers, and R430-70 Out of School Time.

425.5 427.5 Requirements for all Day Care.

425.5.1 427.5.1 Heating equipment in spaces occupied by children shall be provided with partitions, screens, or other means to protect children from hot surfaces and open flames.

425.5.2 427.5.2 A fire escape plan shall be completed and posted in a conspicuous place. All staff shall be trained on the fire escape plan and procedure."

(6) (4) In IBC, Section ~~504.2~~ 504.4, a new section is added as follows: "504.2.1-504.4.1 ~~Notwithstanding the exceptions to Section 504.2,~~ Group I-2 Assisted Living Facilities shall be allowed on each level of a ~~to be two stories~~ story building of Type V-A construction when all of the following apply:

1. All secured units are located at the level of exit discharge in compliance with Section ~~1008.1.9.3~~ 1010.1.9.3 as amended;
2. The total combined area of both stories shall not exceed the total allowable area for a one-story building; and
3. All other provisions that apply in Section 407 have been provided."

Amended by Chapter 297, 2013 General Session

**15A-3-104. Amendments to Chapters 7 through 9 of IBC.**

- (1) IBC, Section (F)901.8, is deleted and replaced with the following: "(F)901.8 Pump and riser room size. Fire pump and automatic sprinkler system riser rooms shall be designed with adequate space for all installed equipment necessary for the installation and to provide sufficient working space around the stationary equipment. Clearances around equipment shall be in accordance with manufacturer requirements and not less than the following minimum elements:
  - 901.8.1 A minimum clear and unobstructed distance of 12-inches shall be provided from the installed equipment to the elements of permanent construction.
  - 901.8.2 A minimum clear and unobstructed distance of 12-inches shall be provided between all other installed equipment and appliances.
  - 901.8.3 A clear and unobstructed width of 36-inches shall be provided in front of all installed equipment and appliances, to allow for inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly.
  - 901.8.4 Automatic sprinkler system riser rooms shall be provided with a clear and unobstructed passageway to the riser room of not less than 36-inches, and openings into the room shall be clear and unobstructed, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 34-inches and a clear height of the door opening shall not be less than 80-inches.
  - 901.8.5 Fire pump rooms shall be provided with a clear and unobstructed passageway to the fire pump room of not less than 72-inches, and openings into the room shall be clear, unobstructed and large enough to allow for the removal of the largest piece of equipment, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 68-inches and a clear height of the door opening shall not be less than 80-inches."
- (2) In IBC, Section (F)903.2.2, the words "the entire floor" are deleted and replaced with "a building" and the last paragraph is deleted.
- (3) IBC, Section (F)903.2.4, condition 2, is deleted and replaced with the following: "2. A Group F-1 fire area is located more than three stories above the lowest level of fire department vehicle access."
- (4) IBC, Section (F)903.2.7, condition 2, is deleted and replaced with the following: "2. A Group M fire area is located more than three stories above the lowest level of fire department vehicle access."
- (5) IBC, Sections (F)903.2.8, (F)903.2.8.1, and (F)903.2.8.2, are deleted and

replaced with the following: "(F)903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exceptions:

1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) constructed in accordance with the International Residential Code For One- and Two-Family Dwellings.
  2. Single story Group R-1 occupancies with fire areas not more than 2,000 square feet that contain no installed plumbing or heating, where no cooking occurs, and constructed of Type I-A, I-B, II-A, or II-B construction.
- (6) IBC, Section (F)903.2.8.3 and (F)903.8.3.1 are renumbered to (F)903.2.8.1 and (F) 903.2.8.1.1.
- (7) IBC, Section (F)903.2.8.3.2 is renumbered to (F)903.2.8.1.2 and the following exception is added.
- ~~3.~~ (1) Group R-4 fire areas not more than 4,500 gross square feet and not containing more than 16 residents, provided the building is equipped throughout with an approved fire alarm system that is interconnected and receives its primary power from the building wiring and a commercial power system."
- (8) IBC, Section (F) 903.2.8.4 is deleted.
- ~~(6)~~ (9) IBC, Section (F)903.2.9, condition 2, is deleted and replaced with the following: "2. A Group S-1 fire area is located more than three stories above the lowest level of fire department vehicle access."
- ~~(7)~~ (10) IBC, Section ~~(F)904.11~~ (F)904.12, is deleted and replaced with the following: ~~(F)904.11~~ (F)904.12 Commercial cooking systems. The automatic fire-extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems. Pre-engineered automatic extinguishing systems shall be tested in accordance with UL 300 and listed and labeled for the intended application. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions.
- Exception: Factory-built commercial cooking recirculating systems that are tested in accordance with UL 710B and listed, labeled, and installed in accordance with Section 304.1 of the International Mechanical Code."
- (8) (11) IBC, Sections ~~(F)904.11.3, (F)904.11.3.1, (F)904.11.4, and (F)904.11.4.1~~ (F)904.12.3, (F)904.12.3.1, (F)904.12.4, and (F)904.12.4.1 are deleted.
- (12) In IBC, Section (F)905.3.9, a new subsection is added as follows: "Open Parking Garages. Open parking garages shall be equipped with an approved Class 1 manual standpipe system when fire department access is not provided for firefighting operations to within 150 feet of all portions of the open parking garage as measured from the approved fire department vehicle access. Class 1 manual standpipe shall be accessible throughout the parking garage such that all portions of the parking structure are protected within 150 fee of a hose connection."
- (13) In IBC, Section (F)905.8, the exception is deleted and replaced with the following: "Exception: Where subject to freezing conditions and approved by the fire code official."
- ~~(9)~~ (14) IBC, Section (F)907.2.3 Group E:

- (a) ~~The first sentence is deleted and rewritten as follows: "A manual fire alarm system that initiates activates the occupant notification system in accordance with Section (F)907.5 and installed in accordance with Section (F)907.6 and Utah Administrative Rule R710-4, shall be installed in Group E occupancies."~~
- (b) ~~In Exception number 3, starting on line five, the words "emergency voice/alarm communication system" are deleted and replaced with "occupant notification system".~~
- (10) ~~In IBC, Section (F)908.7, the first sentence is deleted and replaced as follows: "Groups R-1, R-2, R-3, R-4, I-1, and I-4 occupancies"; the exceptions are deleted and the following sentence is added after the first sentence: "A minimum of one carbon monoxide alarm shall be installed on each habitable level."~~
- (11) ~~In IBC, Section (F)908.7, the following new subsections are added:  
 "(F)908.7.1 Interconnection. Where more than one carbon monoxide alarm is required to be installed within Group R or I-1 occupancies, the carbon monoxide alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.  
 (F)908.7.2 Power source. In new construction, required carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Carbon monoxide alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Carbon monoxide alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection. Exception: Carbon monoxide alarms are not required to be equipped with battery backup where they are connected to an emergency electrical system."~~
- (12) ~~IBC, Section (F)908.7.1, is renumbered to 908.7.3.~~
- (15) ~~IBC Sections (F)915 through (F)915.6 are deleted and replaced with the following:  
 (F) 915 Where required. Group I-1, I-2, I-4 and R occupancies located in a building containing a fuel-burning appliance or in a building which has an attached garage shall be equipped with single-station carbon monoxide alarms. The carbon monoxide alarms shall be listed as complying with UL 2034 or UL 2075 and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in Chapter 2, or an enclosed parking garage ventilated in accordance with Section 404 of the International Mechanical Code shall not be considered an attached garage. A minimum of one carbon monoxide alarm shall be installed on each habitable level.  
 (F)915.1 Interconnection. Where more than one carbon monoxide alarm is required to be installed within Group I-1, I-2, I-4 or R occupancies, the carbon monoxide alarm shall be interconnected in such a manner that the activation of one alarm will active all of the alarms. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms~~

sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

(F)915.2 Power Source. In new construction, required carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Carbon monoxide alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Carbon monoxide alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exceptions.

1. Carbon monoxide alarms are not required to be equipped with battery backup where they are connected to an emergency electrical system.
2. Hard wiring of carbon monoxide alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for hard wiring, without the removal of interior finishes.

(F) 915.3 Group E. A carbon monoxide detection system shall be installed in new buildings that contain Group E occupancies in accordance with IFC Chapter 9, Section 915. A carbon monoxide detection system shall be installed in existing buildings that contain Group, E occupancies in accordance with IFC, Chapter 11, Section 1103.9.

(F)915.3.1 Where required. In Group E occupancies, a carbon monoxide detection system shall be provided where a fuel-burning appliance, a fuel-burning fireplace, or a fuel-burning forced air furnace is present.

(F)915.3.2 Detection equipment. Each carbon monoxide detection system shall be installed in accordance with NFPA 720 and the manufacturer's instructions, and be listed as complying with UL 2034 for single station and UL2075 for system detectors.

(F)915.3.3 Locations. Each carbon monoxide detection system shall be installed in the locations specified in NFPA 720.

(F)915.3.4 Combination detectors. A combination carbon monoxide/smoke detector is an acceptable alternative to a carbon monoxide detection system if the combination carbon monoxide/smoke detector is listed in accordance with UL 2075 and UL 268.

(F)915.3.5 Power source. Each carbon monoxide detection system shall receive primary power from the building wiring if the wiring is served from a commercial source. If primary power is interrupted, each carbon monoxide detection system shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for over-current protection.

(F)915.3.6 Maintenance. Each carbon monoxide detection system shall be maintained in accordance with NFPA 720. A carbon monoxide detection system that becomes inoperable or begins to produce end of life signals shall be replaced.

Amended by Chapter 243, 2014 General Session

**15A-3-105. Amendments to Chapters 10 through 12 of IBC.**

- (1) In IBC, Section ~~1008.1.9.6~~ 1010.1.9.6, the words "Group I-1 and" are added in the title and in the first sentence before the words "Group I-2" and a A new number ~~8~~ 9 is added as follows: "89. The secure area or unit with special egress locks shall be located at the level of exit discharge in Type V construction."
- (2) ~~In IBC, Section 1008.1.9.7, a new number 7 is added as follows: "7. The secure area or unit with delayed egress locks shall be located at the level of exit discharge in Type V construction."~~
- (3) (2) In IBC, Section ~~1009.7.2~~ 1011.5.2 exception ~~5~~ 3 is deleted and replaced with the following: "5 3. In Group R-3 occupancies, within dwelling units in Group R-2 occupancies, and in Group U occupancies that are accessory to a Group R-3 occupancy, or accessory to individual dwelling units in Group R-2 occupancies, the maximum riser height shall be 8 inches (203 mm) and the minimum tread depth shall be 9 inches (229 mm). The minimum winder tread depth at the walk line shall be 10 inches (254 mm), and the minimum winder tread depth shall be 6 inches (152 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 10 inches (254 mm)."
- (4) (3) In IBC, Section ~~1009.15~~ 1011.11, a new exception ~~6~~ 5 is added as follows: "6 5. In occupancies in Group R-3, as applicable in Section 101.2 and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, handrails shall be provided on at least one side of stairways consisting of four or more risers."
- (5) (4) In IBC, Section ~~1011.5~~ 1013.5, the words ", including when the building may not be fully occupied." are added at the end of the sentence.
- (6) (5) IBC, Section ~~1024~~ 1025, is deleted.
- (7) (6) In IBC, Section ~~1028.12~~ 1029.14 exception 2 is deleted.
- (8) (7) In IBC, Section 1109.8, the following words "shall be capable of operation without a key and" are inserted in the second sentence between the words "lift" and "shall".
- (9) (8) In IBC, Section 1208.4, subparagraph 1 is deleted and replaced with the following: "1. The unit shall have a living room of not less than 165 square feet (15.3 m<sup>2</sup>) of floor area. An additional 100 square feet (9.3 m<sup>2</sup>) of floor area shall be provided for each occupant of such unit in excess of two."

Amended by Chapter 297, 2013 General Session

**15A-3-106. Amendments to Chapters 13, ~~and 14,~~ and 15 of IBC.**

IBC, Chapters 13, ~~and 14,~~ and 15 are not amended.

Amended by Chapter 153, 2014 General Session

**~~15A-3-106.5. Amendments to Chapter 15 of IBC.~~**

- (1) ~~IBC, Section 1505.8 is deleted.~~
- (2) ~~IBC, Section 1509.7.2 is deleted.~~
- (3) ~~IBC, Section 1509.7.4 is deleted and rewritten as follows:~~  
"Photovoltaic panels and modules that are mounted on top of a roof shall:
  1. ~~Regardless of the roof assembly classification, be listed and labeled with at least a class C fire classification;~~

- ~~2. Be listed and labeled in accordance with UL 1703; and~~
- ~~3. Be installed in accordance with the manufacturer's installation instructions."~~

~~(4) Subsections (1) through (3) do not apply if the Legislature adopts, with or without amendment, an edition of the IBC that is more recent than the 2012 edition.~~

Enacted by Chapter 153, 2014 General Session

**15A-3-107. Amendments to Chapter 16 of IBC.**

- (1) In IBC, Table 1604.5, Risk Category III, in the sentence that begins "Group I-2," a new footnote c is added as follows: "c. Type II Assisted Living Facilities that are I-2 occupancy classifications in accordance with Section 308 shall be Risk Category II in this table."
- (2) In IBC, Section 1605.2, in the portion of the definition for the value of  $f_2$ , the words "and 0.2 for other roof configurations" are deleted and replaced with the following: " $f_2 = 0.20 + .025(A-5)$  for other configurations where roof snow load exceeds 30 psf;  $f_2 = 0$  for roof snow loads of 30 psf (1.44kN/m<sup>2</sup>) or less. Where A = Elevation above sea level at the location of the structure (ft./1,000)."
- (3) In IBC, Sections 1605.3.1 and 1605.3.2, exception 2 in each section is deleted and replaced with the following: "2. Flat roof snow loads of 30 pounds per square foot (1.44 kNm<sup>2</sup>) or less need not be combined with seismic loads. Where flat roof snow loads exceed 30 pounds per square foot (1.44 kNm<sup>2</sup>), the snow loads may be reduced in accordance with the following in load combinations including both snow and seismic loads.  $W_s$  as calculated below, shall be combined with seismic loads.  $W_s = (0.20 + 0.025(A-5))P_r$  is greater than or equal to  $0.20 P_r$ .  
Where:  
 $W_s$  = Weight of snow to be included in seismic calculations  
A = Elevation above sea level at the location of the structure (ft./1,000)  
 $P_r$  = Design roof snow load, psf.  
For the purpose of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding. The Importance Factor, I, used in calculating  $P_r$  may be considered 1.0 for use in the formula for  $W_s$ ."
- (4) IBC, Section 1608.1, is deleted and replaced with the following: "1608.1 General. Except as modified in Sections 1608.1.1, 1608.1.2, and 1608.1.3, design snow loads shall be determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall not be less than that determined by Section 1607."
- (5) A new IBC, Section 1608.1.1, is added as follows: "1608.1.1 Section 7.4.5 of Chapter 7 of ASCE 7 referenced in Section 1608.1 of the IBC is deleted and replaced with the following: Section 7.4.5 Ice Dams and Icicles Along Eaves. Where ground snow loads exceed 75 psf, eaves shall be capable of sustaining a uniformly distributed load of  $2P_r$  on all overhanging portions. No other loads except dead loads shall be present on the roof when this uniformly distributed load is applied. All building exits under down-slope eaves shall be protected from sliding snow and ice."
- (6) In IBC, Section 1608.1.2, a new section is added as follows: "1608.1.2 Utah Snow Loads. The snow loads specified in Table 1608.1.2(b) shall be used for the

jurisdictions identified in that table. Otherwise, the ground snow load,  $P_g$ , to be used in the determination of design snow loads for buildings and other structures shall be determined by using the following formula:  $P_g = (P_o + S_2(A - A_o)^2)^{0.5}$  for A greater than  $A_o$ , and  $P_g = P_o$  for A less than or equal to  $A_o$ .

WHERE:

$P_g$  = Ground snow load at a given elevation (psf);

$P_o$  = Base ground snow load (psf) from Table No. 1608.1.2(a);

S = Change in ground snow load with elevation (psf/100 ft.) From Table No. 1608.1.2(a);

A = Elevation above sea level at the site (ft./1,000);

$A_o$  = Base ground snow elevation from Table 1608.1.2(a) (ft./1,000).

The building official may round the roof snow load to the nearest 5 psf. The ground snow load,  $P_g$ , may be adjusted by the building official when a licensed engineer or architect submits data substantiating the adjustments. Where the minimum roof live load in accordance with Section 1607.11 is greater than the design roof snow load, such roof live load shall be used for design, however, it shall not be reduced to a load lower than the design roof snow load. Drifting need not be considered for roof snow loads less than 20 psf."

- (7) IBC, Table 1608.1.2(a) and Table 1608.1.2(b), are added as follows:

"TABLE NO. 1608.1.2(a)

| STATE OF UTAH - REGIONAL SNOW LOAD FACTORS |       |     |       |
|--|-------|-----|-------|
| COUNTY                                     | $P_o$ | S   | $A_o$ |
| Beaver                                     | 43    | 6.2 |       |
| Box Elder                                  | 43    | 6.3 | 5.2   |
| Cache                                      | 50    | 6.3 | 4.5   |
| Carbon                                     | 43    | 5.2 |       |
| Daggett                                    | 43    | 6.3 | 6.5   |
| Davis                                      | 43    | 6.3 | 4.5   |
| Duchesne                                   | 43    | 6.3 | 6.5   |
| Emery                                      | 43    | 6.3 | 6.0   |
| Garfield                                   | 43    | 6.3 | 6.0   |
| Grand                                      | 36    | 6.3 | 6.5   |
| Iron                                       | 43    | 6.3 | 5.8   |
| Juab                                       | 43    | 6.3 | 5.2   |
| Kane                                       | 36    | 6.3 | 5.7   |
| Millard                                    | 43    | 6.3 | 5.3   |
| Morgan                                     | 57    | 6.3 | 4.5   |
| Piute                                      | 43    | 6.3 | 6.2   |
| Rich                                       | 57    | 6.3 | 4.1   |
| Salt Lake                                  | 43    | 6.3 | 4.5   |
| San Juan                                   | 43    | 6.3 | 6.5   |
| Sanpete                                    | 43    | 6.3 | 5.2   |
| Sevier                                     | 43    | 6.3 | 6.0   |
| Summit                                     | 86    | 6.3 | 5.0   |
| Tooele                                     | 43    | 6.3 | 4.5   |
| Uintah                                     | 43    | 6.3 | 7.0   |

|            |    |     |     |
|------------|----|-----|-----|
| Utah       | 43 | 63  | 4.5 |
| Wasatch    | 86 | 63  | 5.0 |
| Washington | 29 | 63  | 6.0 |
| Wayne 36   | 63 | 6.5 |     |
| Weber      | 43 | 63  | 4.5 |

TABLE NO. 1608.1.2(B)  
 REQUIRED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS<sup>1,2</sup>  
 The following jurisdictions require design snow load values that differ from the  
 Equation in the Utah Snow Load Study.

| County     | City                                    | Elevation      | Ground Snow Load (psf) | Roof Snow Load (psf) <sup>6</sup> |
|------------|---|----------------|------------------------|-----------------------------------|
| Carbon     | Price <sup>3</sup>                      | 5550           | 43                     | 30                                |
|            | All other county locations <sup>5</sup> | --             | --                     | --                                |
| Davis      | Fruit Heights <sup>3</sup>              | 4500 –<br>4850 | 57                     | 40                                |
| Emery      | Green River <sup>3</sup>                | 4070           | 36                     | 25                                |
| Garfield   | Panguitch <sup>3</sup>                  | 6600           | 43                     | 30                                |
| Rich       | Woodruff <sup>3</sup>                   | 6315           | 57                     | 40                                |
|            | Laketown <sup>4</sup>                   | 6000           | 57                     | 40                                |
|            | Garden City <sup>5</sup>                | --             | --                     | --                                |
|            | Randolph <sup>4</sup>                   | 6300           | 57                     | 40                                |
| San Juan   | Monticello <sup>3</sup>                 | 6820           | 50                     | 35                                |
| Summit     | Coalville <sup>3</sup>                  | 5600           | 86                     | 60                                |
|            | Kamas <sup>4</sup>                      | 6500           | 114                    | 80                                |
| Tooele     | Tooele <sup>3</sup>                     | 5100           | 43                     | 30                                |
| Utah       | Orem <sup>3</sup>                       | 4650           | 43                     | 30                                |
|            | Pleasant Grove <sup>4</sup>             | 5000           | 43                     | 30                                |
|            | Provo <sup>5</sup>                      | --             | --                     | --                                |
| Wasatch    | Heber <sup>5</sup>                      | --             | --                     | --                                |
| Washington | Leeds <sup>3</sup>                      | 3460           | 29                     | 20                                |
|            | Santa Clara <sup>3</sup>                | 2850           | 21                     | 15                                |
|            | St. George <sup>3</sup>                 | 2750           | 21                     | 15                                |
|            | All other county locations <sup>5</sup> | --             | --                     | --                                |
| Wayne      | Loa <sup>3</sup>                        | 7080           | 43                     | 30                                |

<sup>1</sup>The IBC requires a minimum live load - See 1607.11.2.

<sup>2</sup>This table is informational only in that actual site elevations may vary. Table is only valid if site elevation is within 100 feet of the listed elevation.

Otherwise, contact the local Building Official.

<sup>3</sup>Values adopted from Table VII of the Utah Snow Load Study.

<sup>4</sup>Values based on site-specific study. Contact local Building Official for additional information.

<sup>5</sup>Contact local Building Official.

<sup>6</sup>Based on  $C_e=1.0$ ,  $C_t=1.0$  and  $I_s=1.0$ "

- (8) A new IBC, Section 1608.1.3, is added as follows: "1608.1.3 Thermal Factor. The value for the thermal factor,  $C_t$ , used in calculation of  $P_f$  shall be determined from Table 7.3 in ASCE 7. Exception: Except for unheated structures, the value of  $C_t$  need not exceed 1.0 when ground snow load,  $P_g$  is calculated using Section 1608.1.2 as amended."
- (9) IBC, Section 1608.2, is deleted and replaced with the following: "1608.2 Ground Snow Loads. The ground snow loads to be used in determining the design snow loads for roofs in states other than Utah are given in Figure 1608.2 for the contiguous United States and Table 1608.2 for Alaska. Site-specific case studies shall be made in areas designated CS in figure 1608.2. Ground snow loads for sites at elevations above the limits indicated in Figure 1608.2 and for all sites within the CS areas shall be approved. Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2-percent annual probability of being exceeded (50-year mean recurrence interval). Snow loads are zero for Hawaii, except in mountainous regions as approved by the building official."
- (10) A new IBC, Section 1613.1.1, is added as follows: "1613.1.1 ASCE 12.7.2 and 12.14.8.1 of Chapter 12 of ASCE 7 referenced in Section 1613.1, Definition of  $W$ , Item 4 is deleted and replaced with the following:
4. Where the flat roof snow load,  $P_f$ , exceeds 30 psf, the snow load included in seismic design shall be calculated, in accordance with the following formula:  $W_s = (0.20 + 0.025(A-5))P_f$  is greater than or equal to  $0.20 P_f$ .  
WHERE:  
 $W_s$  = Weight of snow to be included in seismic calculations  
 $A$  = Elevation above sea level at the location of the structure (ft./1,000)  
 $P_f$  = Design roof snow load, psf.
- For the purposes of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding. The Importance Factor,  $I$ , used in calculating  $P_f$  may be considered 1.0 for use in the formula for  $W_s$ ."
- (11) A new IBC, Section ~~1613.5~~ 1613.7, is added as follows: " ~~1613.5~~ 1613.7 ASCE 7, Section 13.5.6.2.2 paragraph (e) is modified to read as follows: (e) Penetrations shall have a sleeve or adapter through the ceiling tile to allow for free movement of at least 1 inch (25 mm) in all horizontal directions.  
Exceptions:
1. Where rigid braces are used to limit lateral deflections.
  2. At fire sprinkler heads in frangible surfaces per NFPA 13."

Amended by Chapter 297, 2013 General Session

### **15A-3-108. Amendments to Chapters 17 through 19 of IBC.**

- (1) A new IBC, Section 1807.1.6.4, is added as follows: "1807.1.6.4 Empirical

concrete foundation design. Group R, Division 3 Occupancies three stories or less in height, and Group U Occupancies, which are constructed in accordance with Section 2308, or with other methods employing repetitive wood-frame construction or repetitive cold-formed steel structural member construction, shall be permitted to have concrete foundations constructed in accordance with Table 1807.1.6.4."

(2) A new IBC, Table 1807.1.6.4 is added as follows:

"TABLE 1807.1.6.4  
EMPIRICAL FOUNDATION WALLS (1,7,8)

| "TABLE 1807.1.6.4                  |                             |                |                    |                      |  |                    |  |
|------------------------------------|-----------------------------|----------------|--------------------|----------------------|--|--------------------|--|
| EMPIRICAL FOUNDATION WALLS (1,7,8) |                             |                |                    |                      |  |                    |  |
| Max. Height                        | Top Edge Support            | Min. Thickness | Vertical Steel (2) | Horizontal Steel (3) | Steel at Openings (4)                                      | Max. Lintel Length | Min. Lintel Length                         |
| 2'(610 mm)                         | None                        | 6"             | (5)                | 2- #4 Bars           | 2- #4 Bars above<br>1- #4 Bar each side<br>1- #4 Bar below | 2'(610 mm)         | 2" for each foot of opening width; min. 6" |
| 3'(914 mm)                         | None                        | 6"             | #4@32"             | 3- #4 Bars           | 2- #4 Bars above<br>1- #4 Bar each side<br>1- #4 Bar below | 2'(610 mm)         | 2" for each foot of opening width; min. 6" |
| 4'(1,219 mm)                       | None                        | 6"             | #4@32"             | 4- #4 Bars           | 2- #4 Bars above<br>1- #4 Bar each side<br>1- #4 Bar below | 3'(914 mm)         | 2" for each foot of opening width; min. 6" |
| 6'(1,829 mm)                       | Floor or roof Diaphragm (6) | 8"             | #4@24"             | 5- #4 Bars           | 2- #4 Bars above<br>1- #4 Bar each side<br>1- #4 Bar below | 6'(1,829 mm)       | 2" for each foot of opening width; min. 6" |
| 8'(2,438 mm)                       | Floor or roof Diaphragm (6) | 8"             | #4@24"             | 6- #4 Bars           | 2- #4 Bars above<br>1- #4 Bar each side<br>1- #4 Bar below | 6'(1,829 mm)       | 2" for each foot of opening width; min. 6" |
| 9'(2,743 mm)                       | Floor or roof Diaphragm (6) | 8"             | #4@16"             | 7- #4 Bars           | 2- #4 Bars above<br>1- #4 Bar each side<br>1- #4 Bar below | 6'(1,829 mm)       | 2" for each foot of opening width; min. 6" |

Over 9'(2,743 mm), Engineering required for each column

**Footnotes:**

(1) Based on 3,000 psi (20.6 Mpa) concrete and 60,000 psi (414 Mpa) reinforcing steel.

(2) To be placed in the center of the wall, and extended from the footing to within three inches (76 mm) of the top of the wall; dowels of #4 bars to match vertical steel placement shall be provided in the footing, extending 24 inches (610 mm) into the foundation wall.

(3) One bar shall be located in the top four inches (102 mm), one bar in the bottom four inches (102 mm) and the other bars equally spaced between. Such bar placement satisfies the requirements of Section 1805.9. Corner reinforcing shall be provided so as to lap 24 inches (610 mm).

|   |
|---|
| (4) Bars shall be placed within two inches (51 mm) of the openings and extend 24 inches (610 mm) beyond the edge of the opening; vertical bars may terminate three inches (76 mm) from the top of the concrete. |
| (5) Dowels of #4 bar at 32 inches on center shall be provided in the footing, extending 18 inches (457 mm) into the foundation wall.  |
| (6) Diaphragm shall conform to the requirements of Section 2308.  |
| (7) Footing shall be a minimum of nine inches thick by 20 inches wide.  |
| (8) Soil backfill shall be soil classification types GW, GP, SW, or SP, per Table 1610.1. Soil shall not be submerged or saturated in groundwater."   |

(3) ~~In IBC, Section 1904.2, a new exception 1 is added as follows and the current exception is modified to be number 2.~~

~~Exceptions:~~

~~"1. In ACI Table 4.3.1, for Exposure Class F1, change Maximum w/em from 0.45 to 0.5 and Minimum f<sub>c</sub> from 4,500 psi to 3,000 psi."~~

(4) (3) A new IBC, Section ~~1905.1.11~~ 1905.1.9, is added as follows: "~~1905.1.11~~ 1905.1.9 ACI 318,

Table ~~4.2.1~~ 19.3.1.1." Modify ACI 318, Table ~~4.2.1~~ 19.3.1.1 to read as follows: In the portion of the table designated as "Conditions", the following Exposure categories category and classes are ~~is~~ deleted and replaced with the following:

~~"F0: Concrete elements not exposed to freezing and thawing cycles to include footing and foundation elements that are completely buried in soil.~~

~~F1: Concrete elements exposed to freezing and thawing cycles and are not likely to be saturated or exposed to deicing chemicals.~~

~~F2: Concrete elements exposed to freezing and thawing cycles and are likely to be saturated, but not exposed to deicing chemicals.~~

~~F3: Concrete elements exposed to freezing and thawing cycles and are likely to be saturated and exposed to deicing chemicals."~~

Amended by Chapter 297, 2013 General Session

### **15A-3-109. Amendments to Chapters 20 through 22 of IBC.**

IBC, Chapters 20 through 22 are not amended.

Enacted by Chapter 14, 2011 General Session

### **15A-3-110. Amendments to Chapters 23 through 25 of IBC.**

(1) A new IBC, Section 2306.1.5, is added as follows: "2306.1.5 Load duration factors. The allowable stress increase of 1.15 for snow load, shown in Table 2.3.2, Frequently Used Load Duration Factors, Cd, of the National Design Specifications, shall not be utilized at elevations above 5,000 feet (1,524 M)."

(2) In IBC, Section ~~2308.6~~ 2308.3.1, a new exception 3 is added as follows: "~~Exception:~~ 3. Where foundation plates or sills are bolted or anchored to the foundation with not less than 1/2 inch (12.7 mm) diameter steel bolts or approved anchors, embedded at least 7 inches (178 mm) into concrete or masonry and spaced not more than 32 inches (816 mm) apart, there shall be a minimum of two bolts or anchor straps per piece located not

less than 4 inches (102 mm) from each end of each piece. A properly sized nut and washer shall be tightened on each bolt to the plate."

- (3) IBC, Section 2506.2.1, is deleted and replaced with the following: "2506.2.1 Other materials. Metal suspension systems for acoustical and lay-in panel ceilings shall conform with ASTM C635 listed in Chapter 35 and Section 13.5.6 of ASCE 7, as amended in Section ~~1613.8~~ 1613.7, for installation in high seismic areas."

Amended by Chapter 297, 2013 General Session

#### **15A-3-111. Amendments to Chapters 26 through 28 of IBC**

IBC, Chapters 26 through 28 are not amended.

Enacted by Chapter 14, 2011 General Session

#### **15A-3-112. Amendments to Chapters 29 through 31 of IBC.**

- (1) In IBC [P] Table 2902.1 the following changes are made:
- (a) The title for [P] Table 2902.1 is deleted and replaced with the following: "[P] Table 2902.1, Minimum Number of Required Plumbing Facilities <sup>a, h</sup>".
  - (b) In the row for "E" occupancy in the field for "OTHER" a new footnote i is added.
  - (c) In the row for "I-4" occupancy in the field for "OTHER" a new footnote i is added.
  - (d) A new footnote h is added as follows: "FOOTNOTE: h. When provided, in public toilet facilities there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms."
  - (e) A new footnote i is added to the table as follows: "FOOTNOTE i: Non-residential child care facilities shall comply with additional sink requirements of Utah Administrative Code R430-100-4."
- (2) A new section IBC, Section [P]2902.6, is added as follows: "[P]2902.6 Toilet Facilities for Workers. Toilet facilities shall be provided for construction workers and such facilities shall be maintained in a sanitary condition. Construction worker toilet facilities of the nonsewer type shall conform to ANSI Z4.3.
- (2) (3) In IBC, Section 3006.5, a new exception is added as follows: "Exception: Hydraulic elevators and roped hydraulic elevators with a rise of 50 feet or less."

Amended by Chapter 297, 2013 General Session

#### **15A-3-113. Amendments to Chapters 32 through 35 of IBC.**

- (1) ~~A new section IBC, Section 3401.7, is added as follows: " 3401.7 Parapet bracing, wall anchors, and other appendages. Until June 30, 2014, a building constructed before 1975 shall have parapet bracing, wall anchors, and appendages such as cornices, spires, towers, tanks, signs, statuary, etc. evaluated by a licensed engineer when the building is undergoing structural alterations, which may include structural sheathing replacement of 10% or greater, or other structural repairs. Reroofing or water membrane replacement may not be considered a structural alteration or repair for purposes of this section. Beginning July 1, 2014, a building constructed before 1975 shall have parapet bracing, wall anchors, and appendages such as cornices, spires, towers, tanks, signs, statuary, etc. evaluated by a licensed engineer when the building is undergoing a total reroofing. Parapet bracing, wall anchors, and~~

appendages required by this section shall be evaluated in accordance with 75% of the seismic forces as specified in Section 1613. When allowed by the local building official, alternate methods of equivalent strength as referenced in an approved code under Utah Code, Subsection 15A-1-204(6)(a), will be considered when accompanied by engineer-sealed drawings, details, and calculations. When found to be deficient because of design or deteriorated condition, the engineer's recommendations to anchor, brace, reinforce, or remove the deficient feature shall be implemented.

Exceptions:

1. ~~Group R-3 and U occupancies.~~
2. ~~Unreinforced masonry parapets need not be braced according to the above stated provisions provided that the maximum height of an unreinforced masonry parapet above the level of the diaphragm tension anchors or above the parapet braces shall not exceed one and one-half times the thickness of the parapet wall. The parapet height may be a maximum of two and one-half times its thickness in other than Seismic Design Categories D, E, or F."~~

- (2) ~~IBC, Section 3408.4, is deleted and replaced with the following: "3408.4 Seismic. When a change in occupancy results in a structure being reclassified to a higher Risk Category (as defined in Table 1604.5), or when such change of occupancy results in a design occupant load increase of 100% or more, the structure shall conform to the seismic requirements for a new structure.~~

Exceptions:

1. ~~Specific seismic detailing requirements of this code or ASCE 7 for a new structure shall not be required to be met where it can be shown that the level of performance and seismic safety is equivalent to that of a new structure. A demonstration of equivalence analysis shall consider the regularity, overstrength, redundancy, and ductility of the structure. Alternatively, the building official may allow the structure to be upgraded in accordance with referenced sections as found in an approved code under Utah Code, Subsection 15A-1-204(6)(a).~~
2. ~~When a change of use results in a structure being reclassified from Risk Category I or II to Risk Category III and the structure is located in a seismic map area where SDS is less than 0.33, compliance with the seismic requirements of this code and ASCE 7 are not required.~~
3. ~~Where design occupant load increase is less than 25 occupants and the Risk Category does not change."~~

- (3) (1) In IBC, Chapter 35, the referenced standard ICCA117.1-09, Section 606.2, Exception 1 is modified to include the following sentence at the end of the exception: "The minimum clear floor space shall be centered on the sink assembly."

- (4) (2) The following referenced standard is added under UL in IBC, Chapter 35:

| "Number   | Title   | Referenced in code section number |
|-----------|---|-----------------------------------|
| 2034-2008 | Standard of Single- and Multiple-station Carbon Monoxide Alarms | 907.9"                            |

Amended by Chapter 297, 2013 General Session

**15A-3-201. General provision.**

- (1) The amendments in this part are adopted as amendments to the IRC to be applicable statewide.
- (2) The statewide amendments to the following which may be applied to detached one- and two-family dwellings and multiple single-family dwellings shall be applicable to the corresponding provisions of the IRC:
  - (a) IBC under Part 1, Statewide Amendments to International Building Code;
  - (b) IPC under Part 3, Statewide Amendments to International Plumbing Code;
  - (c) IMC under Part 4, Statewide Amendments to International Mechanical Code;
  - (d) IFGC under Part 5, Statewide Amendments to International Fuel Gas Code;
  - (e) NEC under Part 6, Statewide Amendments to National Electrical Code; and
  - (f) IECC under Part 7, Statewide Amendments to International Energy Conservation Code.

Amended by Chapter 189, 2014 General Session

**15A-3-202. Amendments to Chapters 1 through 5 of IRC.**

- (1) In IRC, Section R102, a new Section R102.7.2 is added as follows:

"R102.7.2 Physical change for bedroom window egress in legal nonconforming rental housing use. A structure classified as a legal nonconforming rental housing use, whose egress bedroom window is smaller than required by this code, is not required to undergo a physical change to conform to this code if the change would compromise the structural integrity of the building or could not be completed in accordance with other applicable requirements of this code, including setback and window well requirements."
- (2) In IRC, Section 109:
  - (a) A new IRC, Section 109.1.5, is added as follows: "R109.1.5 Weather-resistant exterior wall envelope inspections. An inspection shall be made of the weather-resistant exterior wall envelope as required by Section R703.1 and flashings as required by Section R703.8 to prevent water from entering the weather-resistive barrier."
  - (b) The remaining sections are renumbered as follows: R109.1.6 Other inspections; R109.1.6.1 Fire- and smoke-resistance-rated construction inspection; R109.1.6.2 Reinforced masonry, insulating concrete form (ICF) and conventionally formed concrete wall inspection; and R109.1.7 Final inspection.
- (3) IRC, Section R114.1, is deleted and replaced with the following: "R114.1 Notice to owner. Upon notice from the building official that work on any building or structure is being prosecuted contrary to the provisions of this code or other pertinent laws or ordinances or in an unsafe and dangerous manner, such work shall be immediately stopped. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent or to the person doing the work; and shall state the conditions under which work will be permitted to resume."

- (4) In IRC, Section R202, the following definition is added: "CERTIFIED BACKFLOW PREVENTER ASSEMBLY TESTER: A person who has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Utah Code, Subsection 19-4-104(4)."
- (5) In IRC, Section R202, the definition for "CONDITIONED SPACE" is modified by deleting the words at the end of the sentence "being heated or cooled by any equipment or appliance" and replacing them with the following: "enclosed within the building thermal envelope that is directly heated or cooled, or indirectly heated or cooled by any of the following means:
1. Openings directly into an adjacent conditioned space.
  2. An un-insulated floor, ceiling or wall adjacent to a conditioned space.
  3. Un-insulated duct, piping or other heat or cooling source within the space."
- (6) In IRC, Section R202, the definition of "Cross Connection" is deleted and replaced with the following: "CROSS CONNECTION. Any physical connection or potential connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other either water of unknown or questionable safety or steam, gas, or chemical, whereby there exists the possibility for flow from one system to the other, with the direction of flow depending on the pressure differential between the two systems (see "Backflow, Water Distribution")."
- (7) In IRC, Section 202, in the definition for gray water a comma is inserted after the word "washers"; the word "and" is deleted; and the following is added to the end: "and clear water wastes which have a pH of 6.0 to 9.0; are non-flammable; non-combustible; without objectionable odors; non-highly pigmented; and will not interfere with the operation of the sewer treatment facility."
- (8) In IRC, Section R202, the definition of "Potable Water" is deleted and replaced with the following: "POTABLE WATER. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the Utah Code, Title 19, Chapters 4, Safe Drinking Water Act, and 5, Water Quality Act, and the regulations of the public health authority having jurisdiction."
- (9) IRC, Figure R301.2(5), is deleted and replaced with Table R301.2(5a) and Table R301.2(5b) as follows:

"TABLE NO. R301.2(5a)  
STATE OF UTAH - REGIONAL SNOW LOAD FACTORS

| COUNTY    | P <sub>0</sub> | S  | A <sub>0</sub> |
|-----------|----------------|----|----------------|
| Beaver    | 43             | 63 | 6.2            |
| Box Elder | 43             | 63 | 5.2            |
| Cache     | 50             | 63 | 4.5            |
| Carbon    | 43             | 63 | 5.2            |
| Daggett   | 43             | 63 | 6.5            |
| Davis     | 43             | 63 | 4.5            |
| Duchesne  | 43             | 63 | 6.5            |
| Emery     | 43             | 63 | 6.0            |
| Garfield  | 43             | 63 | 6.0            |
| Grand     | 36             | 63 | 6.5            |
| Iron      | 43             | 63 | 5.8            |

|            |    |    |     |
|------------|----|----|-----|
| Juab       | 43 | 63 | 5.2 |
| Kane       | 36 | 63 | 5.7 |
| Millard    | 43 | 63 | 5.3 |
| Morgan     | 57 | 63 | 4.5 |
| Piute      | 43 | 63 | 6.2 |
| Rich       | 57 | 63 | 4.1 |
| Salt Lake  | 43 | 63 | 4.5 |
| San Juan   | 43 | 63 | 6.5 |
| Sanpete    | 43 | 63 | 5.2 |
| Sevier     | 43 | 63 | 6.0 |
| Summit     | 86 | 63 | 5.0 |
| Tooele     | 43 | 63 | 4.5 |
| Uintah     | 43 | 63 | 7.0 |
| Utah       | 43 | 63 | 4.5 |
| Wasatch    | 86 | 63 | 5.0 |
| Washington | 29 | 63 | 6.0 |
| Wayne      | 36 | 63 | 6.5 |
| Weber      | 43 | 63 | 4.5 |

TABLE NO. R301.2(5b)

REQUIRED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS<sup>1,2</sup>

The following jurisdictions require design snow load values that differ from the Equation in the Utah Snow Load Study.

| County   | City                        | Elevation      | Ground Snow Load (psf) | Roof Snow Load (psf) <sup>6</sup> |
|----------|-----------------------------|----------------|------------------------|-----------------------------------|
| Davis    | Fruit Heights <sup>3</sup>  | 4500 –<br>4850 | 57                     | 40                                |
| Emery    | Green River <sup>3</sup>    | 4070           | 36                     | 25                                |
| Garfield | Panguitch <sup>3</sup>      | 6600           | 43                     | 30                                |
| Rich     | Woodruff <sup>3</sup>       | 6315           | 57                     | 40                                |
|          | Laketown <sup>4</sup>       | 6000           | 57                     | 40                                |
|          | Garden City <sup>5</sup>    | --             | --                     | --                                |
|          | Randolph <sup>4</sup>       | 6300           | 57                     | 40                                |
| San Juan | Monticello <sup>3</sup>     | 6820           | 50                     | 35                                |
| Summit   | Coalville <sup>3</sup>      | 5600           | 86                     | 60                                |
|          | Kamas <sup>4</sup>          | 6500           | 114                    | 80                                |
| Tooele   | Tooele <sup>3</sup>         | 5100           | 43                     | 30                                |
| Utah     | Orem <sup>3</sup>           | 4650           | 43                     | 30                                |
|          | Pleasant Grove <sup>4</sup> | 5000           | 43                     | 30                                |
|          | Provo <sup>5</sup>          | --             | --                     | --                                |
| Wasatch  | Heber <sup>5</sup>          | --             | --                     | --                                |

|            |   |      |    |    |
|------------|---|------|----|----|
| Washington | Leeds <sup>3</sup>                      | 3460 | 29 | 20 |
|            | Santa Clara <sup>3</sup>                | 2850 | 21 | 15 |
|            | St. George <sup>3</sup>                 | 2750 | 21 | 15 |
|            | All other county locations <sup>5</sup> | --   | -- | -- |
| Wayne      | Loa <sup>3</sup>                        | 7080 | 43 | 30 |

<sup>1</sup>The IRC requires a minimum live load – See R301.6

<sup>2</sup>This table is informational only in that actual site elevations may vary. Table is only valid if site elevation is within 100 feet of the listed elevation. Otherwise, contact the local Building Official.

<sup>3</sup>Values adopted from Table VII of the Utah Snow Load Study

<sup>4</sup>Values based on site-specific study. Contact local Building Official for additional information.

<sup>5</sup>Contact local Building Official.

<sup>6</sup>Based on  $C_e = 1.0$ ,  $C_t = 1.0$  and  $I_s = 1.0$ "

- (10) IRC, Section R301.6, is deleted and replaced with the following: "R301.6 Utah Snow Loads. The snow loads specified in Table R301.2(5b) shall be used for the jurisdictions identified in that table. Otherwise, the ground snow load,  $P_g$ , to be used in the determination of design snow loads for buildings and other structures shall be determined by using the following formula:  $P_g = (P_o + S_2(A - A_o)^2)^{0.5}$  for A greater than  $A_o$ , and  $P_g = P_o$  for A less than or equal to  $A_o$ .

WHERE:

$P_g$  = Ground snow load at a given elevation (psf);

$P_o$  = Base ground snow load (psf) from Table No. R301.2(5a);

S = Change in ground snow load with elevation (psf/100 ft.) From Table No. R301.2(5a);

A = Elevation above sea level at the site (ft./1,000);

$A_o$  = Base ground snow elevation from Table R301.2(5a) (ft./1,000).

The building official may round the roof snow load to the nearest 5 psf. The ground snow load,  $P_g$ , may be adjusted by the building official when a licensed engineer or architect submits data substantiating the adjustments.

Where the minimum roof live load in accordance with Table R301.6 is greater than the design roof snow load, such roof live load shall be used for design, however, it shall not be reduced to a load lower than the design roof snow load. Drifting need not be considered for roof snow loads less than 20 psf."

- (11) In IRC, Section R302.2, the words "Exception: A" are deleted and replaced with the following:

"Exceptions:

1. ~~A common 2-hour fire resistance-rated wall is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. Electrical installation shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.~~

2. ~~In buildings equipped with an automatic residential fire sprinkler system,~~  
a".

- ~~(12)~~ In IRC, Section R302.2.4, a new exception 6 is added as follows: "6. Townhouses separated by a common 2-hour fire-resistance-rated wall as provided in Section R302.2."
- (13) (11) In IRC, Section R302.5.1, the words "self-closing device" are deleted and replaced with "self-latching hardware".
- (14) (12) In IRC, Section R303.4, the number "5" is changed to "3" in the first sentence.
- ~~(15)~~ (13) IRC, Sections R311.7.4~~5~~ through R311.7.4~~5~~.3, are deleted and replaced with the following:
- "R311.7.4 Stair treads and risers. R311.7.4.1 Riser height. The maximum riser height shall be 8 inches (203 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).
- R311.7.4.2 Tread depth. The minimum tread depth shall be 9 inches (228 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder treads shall have a minimum tread depth of 10 inches (254 mm) measured as above at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the greatest winder tread depth at the 12-inch (305 mm) walk line shall not exceed the smallest by more than 3/8 inch (9.5 mm).
- R311.7.4.3 Profile. The radius of curvature at the leading edge of the tread shall be no greater than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) between two stories, including the nosing at the level of floors and landings. Beveling of nosing shall not exceed 1/2 inch (12.7 mm). Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open risers are permitted, provided that the opening between treads does not permit the passage of a 4-inch diameter (102 mm) sphere.
- Exceptions.
1. A nosing is not required where the tread depth is a minimum of 10 inches (254 mm).
  2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less."

~~(16)~~ In IRC, Section R312.1.2, the words "adjacent fixed seating" are deleted.

~~(17)~~ (14) IRC, Section R312.2, is deleted.

~~(18)~~ (15) IRC, Sections R313.1 through R313.2.1, are deleted and replaced with the following: "R313.1 Design and installation. When installed, automatic residential fire sprinkler systems for townhouses or one- and two-family dwellings shall be designed and installed in accordance with Section P2904 or NFPA 13D."

(19) (16) A new IRC, Section R315.5, is added as follows: "R315.5 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is

interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over-current protection.

Exceptions:

1. Carbon monoxide alarms shall be permitted to be battery operated when installed in buildings without commercial power.
2. Hard wiring of carbon monoxide alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for hard wiring, without the removal of interior finishes."

~~(20)~~ (17) A new IRC, Section R315.6, is added as follows: "R315.6 Interconnection. Where more than one carbon monoxide alarm is required to be installed within an individual dwelling unit in accordance with Section R315.1, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

Exception: Interconnection of carbon monoxide alarms in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes."

~~(21)~~ (18) In IRC, Section R403.1.6, a new Exception ~~43~~ is added as follows: "~~43~~. When anchor bolt spacing does not exceed 32 inches (813 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls, interior braced wall lines, and at all exterior walls."

~~(22)~~ (19) In IRC, Section R403.1.6.1, a new exception is added at the end of Item 2 and Item 3 as follows: "Exception: When anchor bolt spacing does not exceed 32 inches (816 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls, interior braced wall lines, and at all exterior walls."

~~(23)~~ (20) In IRC, Section R404.1, a new exception is added as follows: "Exception: As an alternative to complying with Sections R404.1 through R404.1.5.3, concrete and masonry foundation walls may be designed in accordance with IBC Sections 1807.1.5 and 1807.1.6 as amended in Section 1807.1.6.4 and Table 1807.1.6.4 under these rules."

~~(24)~~ — IRC, Section R501.3, is deleted.

Amended by Chapter 297, 2013 General Session

### **15A-3-203. Amendments to Chapters 6 through 15 of IRC.**

- (1) In IRC, Section N1101.8 (R103.2), all words after the words "herein governed." are deleted and replaced with the following: "Construction documents include all documentation required to be submitted in order to issue a building permit."
- (2) In IRC, Section N1101.14 (R303.3), all wording after the first sentence is deleted.

- (3) In IRC, Table N1102.1.1 (R402.1.1) and Table N1102.1.3 (R402.1.3), the rows for "climate zone 3", "climate zone 5 and Marine 4", and "climate zone 6" are deleted and replaced and a new footnote j is added as follows:

"TABLE N1102.1.1 (R402.1.1)  
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENTa

| "TABLE N1102.1.1 (R402.1.1)                            |                         |                     |                              |                 |                         |                      |               |                         |                        |                            |
|--|-------------------------|---------------------|------------------------------|-----------------|-------------------------|----------------------|---------------|-------------------------|------------------------|----------------------------|
| INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENTa |                         |                     |                              |                 |                         |                      |               |                         |                        |                            |
| CLIMATE ZONE   | FENESTRATION U-FACTOR b | SKYLIGHT b U-FACTOR | GLAZED FENESTRATION SHGC b,e | CEILING R-VALUE | WOOD FRAME WALL R-VALUE | MASS WALL R-VALUE ij | FLOOR R-VALUE | BASEMENT c WALL R-VALUE | SLAB d R-VALUE & DEPTH | CRAWL SPACE c WALL R-VALUE |
| 3  | 0.65                    | 0.65                | 0.40                         | 30              | 15                      | 5                    | 19            | 0                       | 0                      | 5/13                       |
| 5 and Marine 4   | 0.35                    | 0.60                | NR                           | 38              | 19 or 13 + 5h           | 13                   | 30 g          | 10/13                   | 10, 2 ft               | 10/13                      |
| 6  | 0.35                    | 0.60                | NR                           | 49              | 19 or 13 + 5h           | 15                   | 30 g          | 10/13                   | 10, 4 ft               | 10/13                      |

j. Log walls complying with ICC400 and with a minimum average wall thickness of 5" or greater shall be permitted in Zones 5-8 when overall window glazing is .31 U-factor or lower, minimum heating equipment efficiency is 90 AFUE (gas) or 84 AFUE (oil), and all other component requirements are met."

TABLE N1102.1.3 (R402.1.3)

EQUIVALENT U-FACTORSa

| CLIMATE ZONE   | FENESTRATION U-FACTOR | SKYLIGHT U-FACTOR | CEILING U-FACTOR | FRAME WALL U-FACTOR | MASS WALL U-FACTOR b | FLOOR U-FACTOR | BASEMENT WALL U-FACTOR | CRAWL SPACE WALL U-FACTOR |
|----------------|-----------------------|-------------------|------------------|---------------------|----------------------|----------------|------------------------|---------------------------|
| 3              | 0.65                  | 0.65              | 0.035            | 0.082               | 0.141                | 0.047          | 0.360                  | 0.136                     |
| 5 and Marine 4 | 0.35                  | 0.60              | 0.030            | 0.060               | 0.082                | 0.033          | 0.059                  | 0.065                     |
| 6              | 0.35                  | 0.60              | 0.026            | 0.060               | 0.060                | 0.033          | 0.059                  | 0.065                     |

- (4) In IRC, Section N1102.2.1 (R402.2.1), the last sentence is deleted.  
 (5) In IRC, Section N1102.2.2 (R402.2.2), the last sentence is deleted.  
 (6) In IRC, Section N1102.3.3 (R402.3.3), the last sentence is deleted.  
 (7) In IRC, Section N1102.3.4 (R402.3.4), the last sentence is deleted.  
 (8) In IRC, Section N1102.4.1 (R402.4.1), in the first sentence, the word "and" is deleted and replaced with the word "or".

- (9) In IRC, Section N1102.4.1.1 (R402.4.1.1), the last sentence is deleted and replaced with the following: "Where allowed by the building official, the builder may certify compliance to components criteria for items which may not be inspected during regularly scheduled inspections."
- (10) In IRC, Section N1102.4.1.2 (R402.4.1.2), the following changes are made:
- In the first sentence, the words "in Zones 1 and 2, and 3 air changes per hour in Zone 3 through 8" are deleted.
  - In the third sentence, the words "Where required by the building official," and the word "third" are deleted.
  - The following sentence is inserted after the third sentence: "The following parties shall be approved to conduct testing: Parties certified by BPI or RESNET, or licensed contractors who have completed training provided by Blower Door Test equipment manufacturers or other comparable training."
- (11) In IRC, Section N1102.4.4 (R402.4.4), the last sentence is deleted.
- (12) In IRC, Section N1103.2.2 (R403.2.2), the requirements for total leakage testing are deleted and replaced with the following:
1. Postconstruction test: Total leakage shall be less than or equal to 10 cfm (283 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor space when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
  2. Rough-in test: Total leakage shall be less than or equal to 10 cfm (283 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of at least 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 7.5 cfm (212 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area."
- (13) In IRC, Section N1103.2.2 (R403.2.2), the exception for total leakage testing is deleted and replaced with the following: "Exception: The total leakage test is not required for systems with all air handlers and at least 50% of all ducts (measured by length) located entirely within the building thermal envelope."
- (14) In IRC, Section N1103.2.3 (R403.2.3), the words "or plenums" are deleted.
- (15) In IRC, Section N1103.4.2 (R403.4.2), the sentences f or "3.", "9.", and the last sentence are deleted.
- (16) In IRC, Section N1103.5 (R403.5), the first sentence is deleted.
- (17) IRC, Section N1104.1 (R404.1) and the exception are deleted, and N1104.1.1 (R404.1.1) becomes N1104.1 (R404.1).
- (18) In IRC, Table N1105.5.2(1) (R405.5.2(1)), the following changes are made under the column STANDARD REFERENCE DESIGN:
- In the row "Air exchange rate", the words "in Zones 1 and 2, and 3 air changes per hour in Zones 3 through 8" are deleted.
  - In the row "Heating systems<sub>f, g</sub>", the standard reference design is deleted and replaced with the following:

"Fuel Type: same as proposed design Efficiencies:  
Electric: air source heat pump with prevailing federal minimum efficiencies  
Nonelectric furnaces: natural gas furnace with prevailing federal minimum efficiencies

Nonelectric boilers: natural gas boiler with prevailing federal minimum efficiencies

Capacity: sized in accordance with Section N1103.6"

- (c) In the row "Cooling systems<sub>f, h</sub>" the words "As proposed" are deleted and replaced with the following:

"Fuel Type: Electric

Efficiency: in accordance with prevailing federal minimum standards"

- (d) In the row "Service water heating<sub>f, g, h, i</sub>", the words "As proposed" are deleted and replaced with the following:

"Fuel Type: same as proposed design

Efficiency: in accordance with prevailing federal minimum standards

Tank Temperature: 120°F"

- (e) In the row "Thermal distribution systems" the word "none" is deleted and replaced with the following: "Thermal distribution system efficiency (DSE) of .080 shall be applied to both the heating and cooling system efficiencies."

- (19) In Table N1105.5.2(2) (R405.5.2(2)), the number "0.80" is inserted under "Forced air systems" for "Distribution system components located in unconditioned space".

- (20) In IRC, Section M1307.2, the words "In Seismic Design Categories D1 and D2" are deleted.

- (21) The RESCheck Software adopted by the United States Department of Energy and modified to meet the requirements of this section shall be used to verify compliance with this section. The software shall address the Total UA alternative approach and account for Equipment Efficiency Trade-offs when applicable per the standard reference design as amended.

- (22) IRC, Section ~~M1411.6~~ M1411.8, is deleted.

Amended by Chapter 279, 2013 General Session

### **15A-3-204. Amendments to Chapters 16 through 25 of IRC.**

- (1) In IRC, Table M1601.1.1(2), in the section "Round ducts and enclosed rectangular ducts", the word "enclosed" is deleted; the words "14 inches or less" are deleted and replaced with "over 8 inches but less than 15 inches"; the wording "8 under equivalent gage no., and "0.0159" under aluminum minimum thickness (in.), are added; and the section "Exposed rectangular ducts" is deleted.

- (2) In IRC, Section M1901.3, the word "only" is inserted between the words "labeled" and "for".

- (3) A new IRC, Section G2401.2, is added as follows: "G2401.2 Meter Protection. Fuel gas services shall be in an approved location and/or provided with structures designed to protect the fuel gas meter and surrounding piping from physical damage, including falling, moving, or migrating ice and snow. If an added structure is used, it must provide access for service and comply with the IBC or the IRC."

**15A-3-205. Amendments to Chapters 26 through 35 of IRC.**

- (1) A new IRC, Section P2602.3, is added as follows: "P2602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized, provided that the source has been developed in accordance with Utah Code, Sections 73-3-1 and 73-3-25, as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction."
- (2) A new IRC, Section P2602.4, is added as follows: "P2602.4 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is accessible and is within 300 feet of the property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage disposal system in accordance with Utah Administrative Code, Chapter 4, Rule R317, as administered by the Department of Environmental Quality, Division of Water Quality."
- (3) In IRC, Section P2801.78, all words in the first sentence up to the word "water" are deleted.
- (4) A new IRC, Section P2902.1.1, is added as follows: "P2902.1.1 Backflow assembly testing. The premise owner or his designee shall have backflow prevention assemblies operation tested at the time of installation, repair, and relocation and at least on an annual basis thereafter, or more frequently as required by the authority having jurisdiction. Testing shall be performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and Reduced Pressure Detector Assembly."
- (5) IRC, Table P2902.3, is deleted and replaced with the following:

*AW 309 305*

*LR*

| "DEVICE   | DEGREE OF HAZARD <sup>a</sup> | APPLICATION <sup>b</sup>                        | APPLICABLE STANDARDS                               |
|---|-------------------------------|---|--|
| <b>BACKFLOW PREVENTION ASSEMBLIES:</b>  |                               |   |  |
| Double check backflow prevention assembly and double check fire protection backflow prevention assembly | Low hazard                    | Backpressure or backsiphonage<br>Sizes 3/8"–16" | ASSE 1015,<br>AWWA C510,<br>CSA B64.5, CSA B64.5.1 |
| Double check detector fire protection backflow prevention   | Low hazard                    | Backpressure or backsiphonage<br>Sizes 3/8"–16" | ASSE 1048  |

|  |                    |  |   |
|--|--------------------|--|---|
| assemblies   |                    |  |   |
| Pressure vacuum breaker assembly   | High or low hazard | Backsiphonage only<br>Sizes 1/2" - 2"                  | ASSE 1020, CSA B64.1.2                      |
| Reduced pressure principle backflow prevention assembly and reduced pressure principle fire protection backflow assembly | High or low hazard | Backpressure or backsiphonage<br>Sizes 3/8" - 16"      | ASSE 1013, AWWA C511, CSA B64.4, CSAB64.4.1 |
| Reduced pressure detector fire protection backflow prevention assemblies   | High or low hazard | Backpressure or backsiphonage (Fire Sprinkler Systems) | ASSE 1047                                   |
| Spill resistant vacuum breaker assembly  | High or low hazard | Backsiphonage only<br>Sizes 1/2" - 2"                  | ASSE 1056                                   |
| <b>BACKFLOW PREVENTER PLUMBING DEVICES:</b>  |                    |  |   |
| Antisiphon type fill valves for gravity water closet flush tanks   | High hazard        | Backsiphonage only                                     | ASSE 1002, CSA B125.3                       |
| Backflow preventer for carbonated beverage machines  | Low hazard         | Backpressure or backsiphonage<br>Sizes 1/4" - 3/8"     | ASSE 1022                                   |
| Backflow preventer with intermediate atmospheric vents   | Low hazard         | Backpressure or backsiphonage<br>Sizes 1/4" - 3/8"     | ASSE 1012, CSA B64.3                        |
| Dual check valve type backflow preventers  | Low hazard         | Backpressure or backsiphonage<br>Sizes 1/4" - 1"       | ASSE 1024, CSA B64.6                        |

|  |                    |  |                               |
|--|--------------------|--|-------------------------------|
| Hose connection backflow preventer                                     | High or low hazard | Backsiphonage only<br>Sizes 1/2"–1"        | ASSE 1052, CSA B64.2, B64.2.1 |
| Hose connection vacuum breaker   | High or low hazard | Backsiphonage only<br>Sizes 1/2", 3/4", 1" | ASSE 1011, CAN/CSA B64.1.1    |
| Atmospheric type vacuum breaker  | High or low hazard | Backsiphonage only<br>Sizes 1/2"–4"        | ASSE 1001, CSA B64.1.1        |
| Vacuum breaker wall hydrants, frost resistant, automatic draining type | High or low hazard | Backsiphonage only<br>Sizes 3/4", 1"       | ASSE 1019, CSA B64.2.2        |

**OTHER MEANS or METHODS:**

|   |                    |                               |               |
|---|--------------------|-------------------------------|---------------|
| Air gap   | High or low hazard | Backsiphonage only            | ASME A112.1.2 |
| Air gap fittings for use with plumbing fixtures, appliances and appurtenances | High or low hazard | Backpressure or backsiphonage | ASME A112.1.3 |

For SI: 1 inch = 25.4 mm

a. Low Hazard— See Pollution (Section 202), High Hazard— See Contamination (Section 202)

b. See Backpressure (Section 202), See Backpressure, low head (Section 202), See Backsiphonage Section 202)

**Installation Guidelines:** The above specialty devices shall be installed in accordance with their listing and the manufacturer's instructions and the specific provisions of this chapter."

(5) In IRC, Section P2902.1, the following subsections are added as follows:

"P2902.1.1 General Installation Criteria. Assemblies shall not be installed more than five feet above the floor unless a permanent platform is installed. The assembly owner, where necessary, shall provide devices or structures to facilitate testing, repair, and/or maintenance and to insure the safety of the backflow technician.

P2902.1.2 Specific installation criteria:

P2902.1.2.1 Reduced Pressure Principle Backflow Prevention Assembly. The reduced pressure principle backflow prevention assembly shall be installed as follows:

- a. Shall NOT be installed in a pit.
- b. The relief valve of the reduced pressure principle backflow prevention assembly shall not be directly connected to any waste disposal line, including sanitary sewer, storm drains, or vents.
- c. The assembly shall be installed in a horizontal position only unless listed or approved for vertical installation in accordance with Section 303.4
- d. The bottom of each RP assembly shall be installed a minimum of 12 inches above the floor or ground.
- e. The body of the RP assembly shall be a minimum of 12 inches from any walls, ceiling, or obstacle and shall be readily accessible for testing, repair and maintenance.

P2902.1.2.2 Double Check Valve Backflow Prevention Assembly. Double check valve backflow prevention assembly shall be installed as follows:

- a. Shall be installed in a horizontal position only unless listed or approved for vertical installation.
- b. The bottom of the DC assembly shall be a minimum of 12 inches above the ground or floor. The body of the DC assembly shall be a minimum of 12 inches from any walls, ceilings, or obstacle and shall be readily accessible for testing, repair and maintenance.
- c. If installed in a pit, the DC assembly shall be installed with a minimum of 12 inches of clearance between all sides of the vault including the floor and roof or ceiling with adequate room for testing and maintenance.

P2902.1.2.3 Pressure Vacuum Break Assembly and Spill Resistant Pressure Vacuum Breaker Assembly. Pressure vacuum break assemblies and spill resistant pressure vacuum breaker assemblies shall be installed as follows:

- a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions.
- b. Shall be installed a minimum of 12 inches above all downstream piping and the highest point of use.
- c. The PVB or SVB shall be a minimum of 12 inches from walls, ceiling, or obstacle and shall be readily accessible for testing, repair and maintenance.
- d. Shall not be installed below ground or in a vault or pit.
- e. Shall be installed in a vertical position only."

(6) IRC, Section P2910.5, is deleted and replaced with the following: "P2910.5 Potable water connections. When a potable system is connected to a nonpotable water system, the potable water system shall be protected against backflow by a reduced pressure backflow prevention assembly or an air gap installed in accordance with Section 2901."

(7) IRC, Section P2910.9.5, is deleted and replaced with the following: " Makeup water. Where an uninterrupted nonpotable water supply is required for the intended application, potable or reclaimed water shall be provided as a source of makeup water for

the storage tank. The make-up water supply shall be protected against backflow by means of an air gap not less than 4 inches (102 mm) above the overflow or by a reduced pressure backflow prevention assembly installed in accordance with Section 2902."

- (8) In IRC, Section P2911.12.4, the following words are deleted: "and backwater vales".
- (9) In IRC, Section P2912.15.6, the following words are deleted: "and backwater vales".
- (9) In IRC, Section P2913.4.2, the following words are deleted: "and backwater valves".
- (10) IRC, Section P3009 is deleted and replaced with the following: "P3009 Connected to nonpotable water from on-site water reuse systems. Nonpotable systems utilized for subsurface irrigation for single family residences shall comply with the requirements of R317-401, UAC, Gray Water Systems.
- (6) ~~In IRC, Section P3009.1, all words after the word "urinals" are deleted and the following sentence is added at the end: "Gray water recycling systems for subsurface landscape irrigation shall conform with UAC R317-401 Gray Water Systems."~~
- (7) ~~A new IRC, Section P3009.1.1, is added as follows: "P3009.1.1 Recording. The existence of a gray water recycling system shall be recorded on the deed of ownership for that property. The certificate of occupancy shall not be issued until the documentation of the recording required under this section is completed by the owner."~~
- (8) ~~In IRC, Section P3009.2, the words "and systems for subsurface landscape irrigation shall comply with Section P3009.14" are deleted.~~
- (9) ~~IRC, Section P3009.6, is deleted and replaced with the following: "P3009.6 Potable water connections. The potable water supply to any building utilizing a gray water recycling system shall be protected against backflow by a reduced pressure backflow prevention assembly installed in accordance with Section P2902."~~
- (10) ~~In IRC, Section P3009.7, the following is added at the end of the sentence: "and other clear water wastes which have a pH of 6.0 to 9.0; are non-flammable, non-combustible; without objectionable odor; non-highly pigmented; and will not interfere with the operation of the sewer treatment facility."~~
- (11) In IRC, Section P3009.13.3, in the second sentence, the following is added between the words "backflow" and "in": "by a reduced pressure backflow prevention assembly or an air gap installed".
- (12) IRC, Section P3009.14, is deleted and replaced with the following: "Section P3009.14 LANDSCAPE IRRIGATION SYSTEMS. Gray water recycling systems utilized for subsurface irrigation for single family residences shall comply with the requirements of UAC R317-401, Gray Water Systems. Gray water recycling systems utilized for subsurface irrigation for other occupancies shall comply with UAC R317-3, Design Requirements for Wastewater Collection, Treatment and Disposal and UAC R317-4, Onsite Waterwaste Systems."
- (13) In IRC, Section P3103.6, the following sentence is added at the end of the paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward."
- (14) In IRC, Section P3104.4, the following sentence is added at the end of the paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain and floor sink installations when installed below grade in accordance with Chapter 30, and Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent."

Amended by Chapter 297, 2013 General Session

**15A-3-206. Amendments to Chapters 36 and 44 of IRC.**

- (1) In IRC Section E3901.9 the following exception is added: "Exception: Receptacles or other outlets adjacent to the exterior walls of the garage or outlets in storage rooms with entry from the garage shall be permitted to be connected to the garage branch circuit."
- (4) (2) In IRC, Section E3902.4216, the following words are deleted: "family rooms, dining rooms, living rooms, parlors, libraries, dens, sunrooms, recreation rooms, closets, hallways, and similar rooms or areas.  
Exception: This section does not apply for a simple move or an extension of a branch circuit or an outlet which does not significantly increase the existing electrical load. This exception does not include changes involving remodeling or additions to a residence."
- (2) (3) IRC, Chapter 44, is amended by adding the following reference standard:

| "Standard reference number                                 | Title   | Referenced in code section number |
|--|---|-----------------------------------|
| USC-FCCCHR 10th Edition Manual of Cross Connection Control | Foundation for Cross-Connection Control and Hydraulic Research<br>University of Southern California<br>Kaprielian Hall 300 Los Angeles CA<br>90089-2531 | Table P2902.3"                    |

Amended by Chapter 297, 2013 General Session

**15A-3-301. General provision.**

The amendments in this part are adopted as amendments to the IPC to be applicable statewide.

Enacted by Chapter 14, 2011 General Session

**15A-3-302. Amendments to Chapters 1 and 2 of IPC.**

- (1) A new IPC, Section ~~401.2~~ 101.2.1, is added as follows: "For clarification, the International Private Sewage Disposal Code is not part of the plumbing code even though it is in the same printed volume."
- (2) In IPC, Section 202, the definition for "Backflow Backpressure, Low Head" is deleted.
- (3) In IPC, Section 202, the following definition is added: "Certified Backflow Preventer Assembly Tester. A person who has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Utah Code, Subsection 19-4-104(4)."
- (4) In IPC, Section 202, the following definition is added: "Contamination (High Hazard). An impairment of the quality of the potable water that creates an actual hazard to the public health through poisoning or through the spread of disease by sewage, industrial fluids or waste."
- (5) In IPC, Section 202, the definition for "Cross Connection" is deleted and

replaced with the following: "Cross Connection. Any physical connection or potential connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other either water of unknown or questionable safety or steam, gas, or chemical, whereby there exists the possibility for flow from one system to the other, with the direction of flow depending on the pressure differential between the two systems (see "Backflow")."

- (6) In IPC, Section 202, the following definition is added: "Deep Seal Trap. A manufactured or field fabricated trap with a liquid seal of 4" or larger."
- ~~(7)~~ In IPC, Section 202, the definition for "Essentially Nontoxic Transfer Fluid" is deleted and replaced with the following: "Essentially Nontoxic Transfer Fluid. Fluids including propylene glycol or mineral oil."
- ~~(8)~~ In IPC, Section 202, the definition for "Essentially Toxic Transfer Fluid" is deleted and replaced with the following: "Essentially Toxic Transfer Fluid. Soil, waste or gray water and fluids not defined by this code as an essentially nontoxic transfer fluid."
- ~~(7)~~ In IPC, Section 202, in the definition for gray water a comma is inserted after the word "washers"; the word "and" is deleted; and the following is added to the end: "and clear water wastes which have a pH of 6.0 to 9.0; are non-flammable; non-combustible; without objectionable odors; non-highly pigmented; and will not interfere with the operation of the sewer treatment facility."
- ~~(8)~~ (9) In IPC, Section 202, the following definition is added: "High Hazard. See Contamination."
- ~~(9)~~ (10) In IPC, Section 202, the following definition is added: "Low Hazard. See Pollution."
- ~~(10)~~ (11) In IPC, Section 202, the following definition is added: "Pollution (Low Hazard). An impairment of the quality of the potable water to a degree that does not create a hazard to the public health but that does adversely and unreasonably affect the aesthetic qualities of such potable water for domestic use."
- ~~(11)~~ (12) In IPC, Section 202, the definition for "Potable Water" is deleted and replaced with the following: "Potable Water. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the Utah Code, Title 19, Chapters 4, Safe Drinking Water Act, and 5, Water Quality Act, and the regulations of the public health authority having jurisdiction."

Amended by Chapter 297, 2013 General Session

### 15A-3-303. Amendments to Chapter 3 of IPC.

- (1) In IPC, Section 303.4, the following exception is added:  
"Exception: Third-party certification for backflow prevention assemblies will consist of any combination of two certifications, laboratory or field. Acceptable third party laboratory certifying agencies are ASSE, IAPMO, and USC-FCCCHR. USC-FCCCHR currently provides the only field testing of backflow protection assemblies. Also see [www.drinkingwater.utah.gov](http://www.drinkingwater.utah.gov) and Division of Drinking Water Rule, Utah Administrative Code, R309-305-6."
- ~~(2)~~ IPC, Section 304.3, Meter Boxes, is deleted.
- ~~(2)~~ IPC, Section 307.5, Protection of footings, is deleted.
- ~~(3)~~ IPC, Section 311.1, is deleted. "See IBC"
- (4) In IPC, Section 312.3, the following is added at the end of the paragraph:

"Where water is not available at the construction site or where freezing conditions limit the use of water on the construction site, plastic drainage and vent pipe may be permitted to be tested with air. The following procedures shall be followed:

1. Contractor shall recognize that plastic is extremely brittle at lower temperatures and can explode, causing serious injury or death.
2. Contractor assumes all liability for injury or death to persons or damage to property or for claims for labor and/or material arising from any alleged failure of the system during testing with air or compressed gasses.
3. Proper personal protective equipment, including safety eyewear and protective headgear, should be worn by all individuals in any area where an air or gas test is being conducted.
4. Contractor shall take all precautions necessary to limit the pressure within the plastic piping.
5. No water supply system shall be pressurized in excess of 6 psi as measured by accurate gauges graduated to no more than three times the test pressure.
6. The pressure gauge shall be monitored during the test period, which should not exceed 15 minutes.
7. At the conclusion of the test, the system shall be depressurized gradually, all trapped air or gases should be vented, and test balls and plugs should be removed with caution."

(5) In IPC, Section 312.5, the following is added at the end of the paragraph:

"Where water is not available at the construction site or where freezing conditions limit the use of water on the construction site, plastic water pipes may be permitted to be tested with air. The following procedures shall be followed:

1. Contractor shall recognize that plastic is extremely brittle at lower temperatures and can explode, causing serious injury or death.
2. Contractor assumes all liability for injury or death to persons or damage to property or for claims for labor and/or material arising from any alleged failure of the system during testing with air or compressed gasses.
3. Proper personal protective equipment, including safety eyewear and protective headgear, should be worn by all individuals in any area where an air or gas test is being conducted.
4. Contractor shall take all precautions necessary to limit the pressure within the plastic piping.
5. Water supply systems shall be pressure tested to a minimum of 50 psi but not more than 80 psi as measured by accurate gauges graduated to no more than three times the test pressure.
6. The pressure gauge shall be monitored during the test period, which should not exceed 15 minutes.
7. At the conclusion of the test, the system shall be depressurized gradually, all trapped air or gases should be vented, and test balls and plugs should be removed with caution."

(6) A new IPC Section 312.10.3, is added as follows: "312.10.3 Tester Qualifications. Testing shall be performed by a Utah Certified Backflow Preventer

Assembly Tester in accordance with Utah Administrative Code, R309-305."  
Amended by Chapter 297, 2013 General Session

**15A-3-304. Amendments to Chapter 4 of IPC.**

- (1) In IPC, Table 403.1, the following changes are made:
  - (a) The title for Table 403.1 is deleted and replaced with the following: "Table 403.1, Minimum Number of Required Plumbing ~~Facilities-Fixtures~~<sup>a, h</sup>";
  - (b) In ~~the~~ row number "3" for "E" occupancy in the field for "OTHER" a new footnote i g is added.
  - (c) In the row number "5" for "I-4 Adult day care and child day care" occupancy in the field for "OTHER" a new footnote i g is added.
  - (d) A new footnote h f is added as follows: "FOOTNOTE: h f. When provided, in public toilet facilities there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms. Diaper changing facilities shall meet the requirements of ASTM F2285-04 (2010) Standard Consumer Safety Performance Specifications for Diaper Changing Tables for Commercial Use."
  - (e) A new footnote i g is added to the table as follows: "FOOTNOTE i g: Non-residential child care facilities shall comply with the additional sink requirements of Utah Administrative Code R430-100-4."
- (2) A new IPC, Section 406.3, is added as follows: " 406.3 Automatic clothes washer safe pans. Safe pans, when installed under automatic clothes washers, shall be installed in accordance with Section 504.7."
- (3) A new IPC, Section 412.5, is added as follows: "412.5 Public toilet rooms. All public toilet rooms in A & E occupancies and M occupancies with restrooms having multiple water closets or urinals shall be equipped with at least one floor drain."
- (4) IPC, Section 423.3 is deleted.

Amended by Chapter 297, 2013 General Session

**15A-3-305. Amendments to Chapter 5 of IPC.**

- (1) IPC, Section 502.4, is deleted and replaced with the following: "502.4 Seismic supports. ~~Appliances designed to be fixed in position shall be fastened or anchored in an approved manner. As a minimum requirement, W~~water heaters shall be anchored or strapped to resist horizontal displacement caused by earthquake motion. Strapping shall be at points within the upper one-third and lower one-third of the appliance's vertical dimensions. ~~At the lower point, the strapping shall maintain a minimum distance of 4 inches (102 mm) above the controls.~~"
- (2) In IPC, Section 504.7.2, the following is added at the end of the section: "When permitted by the code official, the pan drain may be directly connected to a soil stack, waste stack, or branch drain. The pan drain shall be individually trapped and vented as required in Section 907.1. The pan drain shall not be directly or indirectly connected to any vent. The trap shall be provided with a trap primer conforming to ASSE 1018 or ASSE 1044, a barrier type floor drain trap seal protection device meeting ASSE 1072, or a deep seal p-trap."
- (3) A new IPC, Section 504.7.3, is added as follows: "504.7.3 Pan Designation.

A water heater pan shall be considered an emergency receptor designated to receive the discharge of water from the water heater only and shall not receive the discharge from any other fixtures, devices, or equipment."

Amended by Chapter 297, 2013 General Session

**15A-3-306. Amendments to Chapter 6 of IPC.**

- (1) IPC, Section 602.3, is deleted and replaced with the following: "602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized provided that the source has been developed in accordance with Utah Code, Sections 73-3-1, 73-3-3, and 73-3-25, as of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction. The source shall supply sufficient quantity of water to comply with the requirements of this chapter."
- (2) IPC, Sections 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.3.5, and 602.3.5.1, are deleted.
- (3) A new IPC, Section 604.4.1, is added as follows: "604.4.1 Manually operated metering faucets for food service establishments. Self closing or manually operated metering faucets shall provide a flow of water for at least 15 seconds without the need to reactivate the faucet."
- (4) IPC, Section 606.5, is deleted and replaced with the following: "606.5 Water pressure booster systems. Water pressure booster systems shall be provided as required by Section 606.5.1 through 606.5.11."
- (5) A new IPC, Section 606.5.11, is added as follows: "606.5.11 Prohibited installation. In no case shall a booster pump be allowed that will lower the pressure in the public main to less than the minimum water pressure specified in Utah Administrative Code R309-105-9."
- (6) In IPC, Section 608.1, the words "and pollution" are added after the word "contamination."
- (7) IPC, Table 608.1, is deleted and replaced with the following:

"TABLE 608.1  
Application of Backflow Preventers

| "DEVICE                                | DEGREE OF HAZARD <sup>a</sup> | APPLICATION <sup>b</sup> | APPLICABLE STANDARDS |
|--|-------------------------------|--------------------------|----------------------|
| <b>BACKFLOW PREVENTION ASSEMBLIES:</b> |                               |                          |                      |
|  |                               |                          |                      |

|  |                    |  |   |
|--|--------------------|--|---|
| Double check backflow prevention assembly and double check fire protection backflow prevention assembly                  | Low hazard         | Backpressure or backsiphonage<br>Sizes 3/8" - 16"      | ASSE 1015,<br>AWWA C510,<br>CSA B64.5, CSA<br>B64.5.1 |
| Double check detector fire protection backflow prevention assemblies   | Low hazard         | Backpressure or backsiphonage<br>Sizes 3/8" - 16"      | ASSE 1048   |
| Pressure vacuum breaker assembly   | High or low hazard | Backsiphonage only<br>Sizes 1/2" - 2"                  | ASSE 1020, CSA<br>B64.1.2                             |
| Reduced pressure principle backflow prevention assembly and reduced pressure principle fire protection backflow assembly | High or low hazard | Backpressure or backsiphonage<br>Sizes 3/8" - 16"      | ASSE 1013,<br>AWWA C511,<br>CSA B64.4,<br>CSAB64.4.1  |
| Reduced pressure detector fire protection backflow prevention assemblies   | High or low hazard | Backpressure or backsiphonage (Fire Sprinkler Systems) | ASSE 1047   |
| Spill resistant vacuum breaker assembly  | High or low hazard | Backsiphonage only<br>Sizes 1/2" - 2"                  | ASSE 1056   |

**BACKFLOW PREVENTER PLUMBING DEVICES:**

|  |             |                    |                          |
|--|-------------|--------------------|--------------------------|
| Antisiphon type fill valves for gravity water closet flush tanks | High hazard | Backsiphonage only | ASSE 1002, CSA<br>B125.3 |
| Backflow preventer   | Low hazard  | Backpressure or    | ASSE 1022                |

|  |                    |   |                               |
|--|--------------------|---|-------------------------------|
| for carbonated beverage machines                                       |                    | backsiphonage<br>Sizes 1/4"– 3/8"                 |                               |
| Backflow preventer with intermediate atmospheric vents                 | Low hazard         | Backpressure or backsiphonage<br>Sizes 1/4"– 3/8" | ASSE 1012, CSA B64.3          |
| Dual check valve type backflow preventers                              | Low hazard         | Backpressure or backsiphonage<br>Sizes 1/4"– 1"   | ASSE 1024, CSA B64.6          |
| Hose connection backflow preventer                                     | High or low hazard | Backsiphonage only<br>Sizes 1/2"– 1"              | ASSE 1052, CSA B64.2, B64.2.1 |
| Hose connection vacuum breaker   | High or low hazard | Backsiphonage only<br>Sizes 1/2", 3/4", 1"        | ASSE 1011, CAN/CSA B64.1.1    |
| Atmospheric type vacuum breaker  | High or low hazard | Backsiphonage only<br>Sizes 1/2"– 4"              | ASSE 1001, CSA B64.1.1        |
| Vacuum breaker wall hydrants, frost resistant, automatic draining type | High or low hazard | Backsiphonage only<br>Sizes 3/4", 1"              | ASSE 1019, CSA B64.2.2        |

OTHER MEANS or METHODS:

|   |                    |                               |               |
|---|--------------------|-------------------------------|---------------|
| Air gap   | High or low hazard | Backsiphonage only            | ASME A112.1.2 |
| Air gap fittings for use with plumbing fixtures, appliances and appurtenances | High or low hazard | Backpressure or backsiphonage | ASME A112.1.3 |

For SI: 1 inch = 25.4 mm

a. Low Hazard – See Pollution (Section 202), High Hazard – See Contamination (Section 202)

b. See Backpressure (Section 202), See Backpressure, low head (Section 202), See Backsiphonage Section 202)

Installation Guidelines: The above specialty devices shall be installed in accordance with their listing and the manufacturer's instructions and the specific provisions of this chapter."

In IPC, Section 608.1, the following subsections are added as follows:

608.1.1 General Installation Criteria. Assemblies shall not be installed more than five (5) feet above the floor unless a permanent platform is installed. The assembly owner, where necessary, shall provide devices or structures to facilitate testing, repair, and/or maintenance and to insure the safety of the backflow technician.

608.1.2 Specific installation criteria:

608.1.2.1 Reduced Pressure Principle Backflow Prevention Assembly. The reduced pressure principle backflow prevention assembly shall be installed as follows:

- a. Shall NOT be installed in a pit.
- b. The relief valve of the reduced pressure principle backflow prevention assembly shall not be directly connected to any waste disposal line, including sanitary sewer, storm drains, or vents.
- c. The assembly shall be installed in a horizontal position only unless listed or approved for vertical installation in accordance with Section 303.4
- d. The bottom of each RP assembly shall be installed a minimum of 12 inches above the floor or ground.
- e. The body of the RP assembly shall be a minimum of 12 inches from any walls, ceiling, or obstacle and shall be readily accessible for testing, repair and maintenance.

608.1.2.2 Double Check Valve Backflow Prevention Assembly. Double check valve backflow prevention assembly shall be installed as follows:

- a. Shall be installed in a horizontal position only unless listed or approved for vertical installation.
- b. The bottom of the DC assembly shall be a minimum of 12 inches above the ground or floor. The body of the DC assembly shall be a minimum of 12 inches from any walls, ceilings, or obstacle and shall be readily accessible for testing, repair and maintenance.
- c. If installed in a pit, the DC assembly shall be installed with a minimum of 12 inches of clearance between all sides of the vault including the floor and roof or ceiling with adequate room for testing and maintenance.

608.1.2.3 Pressure Vacuum Break Assembly and Spill Resistant Pressure Vacuum Breaker Assembly. Pressure vacuum break assemblies and spill resistant pressure vacuum breaker assemblies shall be installed as follows:

- a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions.
- b. Shall be installed a minimum of 12 inches above all downstream piping and the highest point of use.
- c. The PVB or SVB shall be a minimum of 12 inches from walls, ceiling, or obstacle and shall be readily accessible for testing, repair and maintenance.
- d. Shall not be installed below ground or in a vault or pit.

e. Shall be installed in a vertical position only.

- (8) In IPC, Section 608.3, the word "and" after the word "contamination" is deleted and replaced with a comma and the words "and pollution" are added after the word "contamination" in the first sentence.
- (9) In IPC, Section 608.5, the words "with the potential to create a condition of either contamination or pollution or" are added after the word "substances".
- (10) In IPC, Section 608.6, the following sentence is added at the end of the paragraph: "Any connection between potable water piping and sewer-connected waste shall be protected by an air gap in accordance with Section 608.13.1."
- (11) IPC, Section 608.7, is deleted and replaced with the following: "608.7 Stop and Waste Valves installed below grade. Combination stop-and-waste valves shall be permitted to be installed underground or below grade. Freeze proof yard hydrants that drain the riser into the ground are considered to be stop-and-waste valves and shall be permitted. Stop and waste valves shall be installed in accordance with manufacturer's recommended installation instructions."
- (12) In IPC, Section 608.11, the following sentence is added at the end of the paragraph: "The coating and installation shall conform to NSF Standard 61 and application of the coating shall comply with the manufacturer's instructions."
- (13) IPC, Section 608.13.3, is deleted and replaced with the following: "608.13.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with intermediate atmospheric vents shall conform to ASSE 1012 or CSA CAN/CSA- B64.3. These devices shall be permitted to be installed on residential boilers only, without chemical treatment, where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from being submerged."
- (14) IPC, Section 608.13.4, is deleted.
- (15) IPC, Section 608.13.9, is deleted and replaced with the following: "608.13.9 Chemical dispenser backflow devices. Backflow devices for chemical dispensers shall comply with Section 608.16.7."
- (16) IPC, Section 608.15.3, is deleted and replaced with the following: "608.15.3 Protection by a backflow preventer with intermediate atmospheric vent. Connections to residential boilers only, without chemical treatment, shall be protected by a backflow preventer with an intermediate atmospheric vent."
- (17) IPC, Section 608.15.4, is deleted and replaced with the following: "608.15.4 Protection by a vacuum breaker. Openings and outlets shall be protected by atmospheric-type or pressure-type vacuum breakers. Vacuum breakers shall not be installed under exhaust hoods or similar locations that will contain toxic fumes or vapors. Fill valves shall be set in accordance with Section 425.3.1.  
Atmospheric Vacuum Breakers - The critical level of the atmospheric vacuum breaker shall be set a minimum of 6 inches (152 mm) above the flood level rim of the fixture or device. Pipe-applied vacuum breakers shall be installed not less than 6 inches (152 mm) above the flood level rim of the fixture, receptor, or device served. No valves shall be installed downstream of the atmospheric vacuum breaker.  
Pressure Vacuum Breaker - The critical level of the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm) above the flood level of the fixture or device."

- (18) In IPC, Section 608.15.4.2, the following is added after the first sentence:  
"Add-on-backflow prevention devices shall be non-removable. In climates where freezing temperatures occur, a listed self-draining frost proof hose bibb with an integral backflow preventer shall be used."
- (19) IPC, Section 608.16.2, is deleted and replaced as follows: "608.16.2 Connections to boilers. The potable supply to a boiler shall be protected by an air gap or a reduced pressure principle backflow preventer, complying with ASSE 1013, CSA B64.4 or AWWA C511.  
Exception: The potable supply to a residential boiler without chemical treatment may be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012 or CSA CAN/CSA-B64.3."
- ~~(20) IPC, Section 608.16.3, is deleted and replaced with the following: "608.16.3 Heat exchangers. Heat exchangers shall be separated from potable water by double wall construction. An air gap open to the atmosphere shall be provided between the two walls.  
Exceptions:  
1. Single wall heat exchangers shall be permitted when all of the following conditions are met:  
a. It utilizes a heat transfer medium of potable water or contains only substances which are recognized as safe by the United States Food and Drug Administration (FDA);  
b. The pressure of the heat transfer medium is maintained less than the normal minimum operating pressure of the potable water system; and  
c. The equipment is permanently labeled to indicate only additives recognized as safe by the FDA shall be used.  
2. Steam systems that comply with paragraph 1 above.  
3. Approved listed electrical drinking water coolers."~~
- (21) ~~(20)~~ In IPC, Section 608.16.4.1, a new exception is added as follows:  
"Exception: All class 1 and 2 systems containing chemical additives consisting of strictly glycerine (C.P. or U.S.P. 96.5 percent grade) or propylene glycol shall be protected against backflow with a double check valve assembly. Such systems shall include written certification of the chemical additives at the time of original installation and service or maintenance."
- ~~(22) (21)~~ IPC, Section 608.16.7, is deleted and replaced with the following: "608.16.7 Chemical dispensers. Where chemical dispensers connect to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.13.1, Section 608.13.2, Section 608.13.5, Section 608.13.6 or Section 608.13.8. Chemical dispensers shall connect to a separate dedicated water supply separate from any sink faucet."
- ~~(23) (22)~~ IPC, Section 608.16.8, is deleted and replaced with the following: "608.16.8 Portable cleaning equipment. Where the portable cleaning equipment connects to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.13.1, Section 608.13.2 or Section 608.13.8."
- ~~(24) (23)~~ A new IPC, Section 608.16.11, is added as follows: "608.16.11 Automatic

and coin operated car washes. The water supply to an automatic or coin operated car wash shall be protected in accordance with Section 608.13.1 or Section 608.13.2."

(25) (24) IPC, Section 608.17, is deleted and replaced with the following: "608.17 Protection of individual water supplies. See Section 602.3 for requirements."

Amended by Chapter 189, 2014 General Session

#### **15A-3-307. Amendments to Chapter 7 of IPC.**

- (1) IPC, Section 701.2, is deleted and replaced with the following: "701.2 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is accessible and is within 300 feet of the property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage disposal system in accordance with Utah Administrative Code, Rule R317-4, as administered by the Department of Environmental Quality, Division of Water Quality."
- (2) In IPC, Section 712.3.3.1, the following words are added before the word "or": "stainless steel, cast iron, galvanized steel".

Amended by Chapter 297, 2013 General Session

#### **15A-3-308. Amendments to Chapter 8 of IPC.**

~~IPC, Chapter 8, is not amended.~~

(1) ~~In IPC, Section 802.1.1, the last sentence is deleted.~~

~~Enacted by Chapter 14, 2011 General Session~~

#### **15A-3-309. Amendments to Chapter 9 of IPC.**

- (1) In IPC, Section 903.1, when the number of inches is to be specified, "12 inches (304.8mm)" is inserted.
- (2) In IPC, Section 903.6, the following sentence is added at the end of the paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward."
- (3) In IPC, Section 905.4, the following sentence is added at the end of the paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain, floor sink, and bath tub installations when installed in accordance with Sections 702.2, 905.2 and 905.3 and provided with a wall clean out."

Amended by Chapter 297, 2013 General Session

#### **15A-3-310. Amendments to Chapter 10 of IPC.**

~~In IPC, Section 1002.4, the following is added at the end of the paragraph:~~

~~"Approved Means of Maintaining Trap Seals. Approved means of maintaining trap seals include the following, but are not limited to the methods cited:~~

- ~~1. — A listed trap seal primer conforming to ASSE 1018 and ASSE 1044.~~
- ~~2. — A hose bibb or bibbs within the same room.~~
- ~~3. — Drainage from an untrapped lavatory discharging to the tailpiece of those fixture traps which require priming. All fixtures shall be in the same room and on the same floor level as the trap primer.~~
- ~~4. — Barrier type floor drain trap seal protection device meeting ASSE Standard 1072.~~

5. ~~Deep seal p-trap".~~

Amended by Chapter 297, 2013 General Session

**15A-3-311. Amendments to Chapter 11 of IPC.**

(1) ~~IPC, Section 1104.2, is deleted and replaced with the following: "1104.2 Combining storm and sanitary drainage prohibited. The combining of sanitary and storm drainage systems is prohibited."~~

(1) A new IPC, Section 1106.1.1, is added as follows: "1106.1.1 Alternate Methods. Approved alternate storm drain sizing methods may be allowed."

(2) ~~IPC, Section 1109, is deleted.~~

Amended by Chapter 297, 2013 General Session

**15A-3-312. Amendments to Chapter 12 of IPC.**

IPC, Chapter 12, is not amended.

Enacted by Chapter 14, 2011 General Session

**15A-3-313. Amendments to Chapter 13 of IPC.**

(1) ~~In IPC, Section 1301.1, all words after the word "urinals" are deleted and the following sentence is added at the end: "Gray water recycling systems for subsurface landscape irrigation shall conform with UAC R317-401 Gray Water Systems."~~

(2) ~~A new IPC, Section 1301.1.1, is added as follows: "1301.1.1 Recording. The existence of a gray water recycling system shall be recorded on the deed of ownership for that property. The certificate of occupancy shall not be issued until the documentation of the recording required under this section is completed by the owner."~~

(3) ~~In IPC, Section 1301.2, the words "and systems for subsurface landscape irrigation shall comply with Section 1303" are deleted.~~

(4) ~~IPC, Section 1301.6, is deleted and replaced with the following: "1301.6 Potable water connections. The potable water supply to any building utilizing a gray water recycling system shall be protected against backflow by a reduced pressure backflow prevention assembly installed in accordance with Section 608."~~

(5) ~~In IPC, Section 1301.7, the following is added at the end of the sentence: "and other clear water wastes which have a pH of 6.0 to 9.0; are non-flammable, non-combustible; without objectionable odor; non-highly pigmented; and will not interfere with the operation of the sewer treatment facility."~~

(6) ~~In IPC, Section 1302.3, in the second sentence, the following is added between the words "backflow" and "in": "by a reduced pressure backflow prevention assembly or an air gap installed"~~

(7) ~~IPC, Section 1303, is deleted and replaced with the following: "Section 1303 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS. Gray water recycling systems utilized for subsurface irrigation for single family residences shall comply with the requirements of UAC R317-401, Gray Water Systems. Gray water recycling systems utilized for subsurface irrigation for other occupancies shall comply with UAC R317-3, Design Requirements for Wastewater Collection, Treatment and Disposal and UAC R317-4, Onsite Wastewater Systems."~~

- (1) A new IPC, Section 1301.4.1 is added as follows: "1301.4.1 Recording. The existence of a non-potable water system shall be recorded on the deed of ownership for the property. The certificate of occupancy shall not be issued until the documentation for the recording required under this section is completed by the property owner.
- (2) IPC, Section 1301.5, is deleted and replaced with the following: 1301.5 Potable water connections. Where a potable system is connected to a non-potable water system, the potable water supply shall be protected against backflow by a reduced pressure backflow prevention assembly or an air gap installed in accordance with Section 608.
- (3) IPC, Section 1301.9.5, is deleted and replaced with the following: 1301.9.5 Makeup water. Where an uninterrupted supply is required for the intended application, potable or reclaimed water shall be provided as a source of makeup water for the storage tank. The makeup water supply shall be protected against backflow by a reduced pressure backflow prevention assembly or an air gap installed in accordance with Section 608. A full-open valve located on the makeup water supply line to the storage tank shall be provided. Inlets to the storage tank shall be controlled by fill valves or other automatic supply valves installed to prevent the tank from overflowing and to prevent the water level from dropping below a predetermined point. Where makeup water is provided, the water level shall not be permitted to drop below the source water inlet or the intake of any attached pump.
- (4) IPC, Section 1302.12.4, is deleted and replaced with the following: 1302.12.4 Inspection and testing of backflow prevention assemblies. The testing of backflow preventers shall be conducted in accordance with Section 312.10.1, 312.10.2, and 312.10.3.
- (5) IPC, Section 1303.15.6, is deleted and replaced with the following: Inspection and testing of backflow prevention assemblies. The testing of backflow preventers shall be conducted in accordance with Section 312.110.1, 312.10.2, and 312.10.3.
- (6) IPC, Section 1304.4.2, is deleted and replaced with the following: The testing of backflow preventers and backwater valves shall be conducted in accordance with Section 312.10.1, 312.10.2, and 312.10.3.

Amended by Chapter 297, 2013 General Session

**15A-3-314. Amendments to Chapter 14 of IPC.**

- (1) IPC, Chapter 14, is deleted and replaced with the following"  
"Section 1401. SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS. Gray water recycling systems utilized for subsurface irrigation for single family residences shall comply with the requirements of UAC R317-401, Gray Water Systems. Gray water recycling systems utilized for subsurface irrigation for other occupancies shall comply with UAC R317-3, Design Requirements for Wastewater Collection, Treatment and Disposal and UAC R317-4, Onsite Waterwaste Systems."

**15A-3-315. Amendments to Chapter 15 of IPC.**

- (1) In IPC, Chapter 14, the following referenced standard is added under ASSE:

| "Standard reference number | Title | Referenced in code section number |
|----------------------------|-------|-----------------------------------|
|----------------------------|-------|-----------------------------------|

|           |  |         |
|-----------|--|---------|
| 1072-2007 | Performance Requirements for<br>Barrier<br>Type Floor Drain Trap Seal<br>Protection<br>Devices | 1004.2" |
|-----------|--|---------|

(2) (1) In IPC, Chapter 14 ~~15~~, the following referenced standard is added:

| "Standard reference number                                 | Title  | Referenced in code section number |
|--|--|-----------------------------------|
| USC-FCCCHR 10th Edition Manual of Cross Connection Control | Foundation for Cross-Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531 | Table 608.1"                      |

(3) ~~IPC, Appendix C, is deleted and replaced with the following Appendix C, Gray Water Recycling~~

Amended by Chapter 297, 2013 General Session

### 15A-3-401. General provisions.

The following are adopted as amendments to the IMC to be applicable statewide:

- (1) ~~In IMC, Section 202, the definition for "CONDITIONED SPACE" is deleted and replaced with the following: "CONDITIONED SPACE. An area, room, or space enclosed within the building thermal envelope that is directly heated or cooled, or indirectly heated or cooled by any of the following means:~~
- ~~1. Openings directly into an adjacent conditioned space.~~
  - ~~2. An un-insulated floor, ceiling or wall adjacent to a conditioned space.~~
  - ~~3. Un-insulated duct, piping or other heat or cooling source within the space."~~
- (2) ~~In IMC, Section 403.2.1, Item 3, is deleted and replaced with the following: "Except as provided in Table 403.3, Note h, where mechanical exhaust is required by Note b in Table 403.3, recirculation of air from such spaces is prohibited. All air supplied to such spaces shall be exhausted, including any air in excess of that required by Table 403.3."~~
- (3) ~~In IMC, Table 403.3, Note b, is deleted and replaced with the following: "Except as provided in Note h, mechanical exhaust required and the recirculation of air from such spaces is prohibited (see Section 403.2.1, Item 3)."~~
- (4) ~~In IMC, Table 403.3, Note h is deleted and replaced with the following:~~
- ~~"1. For a nail salon where a nail technician files or shapes an acrylic nail, as defined by rule by the Division of Occupational and Professional Licensing, in accordance with Title 63G, Chapter 3, Utah Administrative Rulemaking Act, each nail station where a nail technician files or shapes an acrylic nail shall be provided with:~~

- a. ~~a source capture system capable of filtering and recirculating air to inside space not less than 50 cfm per station; or~~
- b. ~~a source capture system capable of exhausting not less than 50 cfm per station."~~
- 2. ~~Except as provided in paragraph 3, the requirements described in paragraph 1 apply beginning on July 1, 2020.~~
- 3. ~~The requirements described in paragraph 1 apply beginning on July 1, 2014 if the nail salon is under or begins new construction or remodeling on or after July 1, 2014.~~
- (5) ~~In IMC, Section 403, a new Section 403.8 is added as follows:  
"Retrospective effect. Removal, alteration, or abandonment shall not be required, and continued use and maintenance shall be allowed, for a ventilation system within an existing installation that complies with the requirements of this Section 403 regardless of whether the ventilation system satisfied the minimum ventilation rate requirements of prior law."~~
- (6) In IMC, Table 603.4, in the section "Round ducts and enclosed rectangular ducts", the word "enclosed" is deleted; the words "14 inches or less" are deleted and replaced with "over 8 inches but less than 15 inches"; the wording "8 inches or less" under duct size, "0.013" under minimum thickness (in.), "30" under equivalent gage no., and "0.0159" under aluminum minimum thickness (in.), are added; and the section "Exposed rectangular ducts" is deleted.
- (7) (1) In IMC, Section 1004.2, the first sentence is deleted and replaced with the following: "Boilers and pressure vessels in Utah are regulated by the Utah Labor Commission, Division of Boiler, Elevator and Coal Mine Safety, except those located in private residences or in apartment houses of less than five family units. Boilers shall be installed in accordance with their listing and labeling, with minimum clearances as prescribed by the manufacturer's installation instructions."
- (8) (2) In IMC, Section 1004.3.1, the word "unlisted" is inserted before the word "boilers".
- (9) (3) IMC, Section 1101.10, is deleted.
- (4) In IMC, Section 1209.3, the following words are added at the end of the section: "or other methods approved for the application."

Amended by Chapter 100, 2014 General Session

### **15A-3-501. General provisions.**

The following are adopted as an amendment to the IFGC to be applicable statewide:

- (1) In IFGC, Section 404.9, a new Section 404.9.1, is added as follows: "404.9.1 Meter protection. Fuel gas services shall be in an approved location and/or provided with structures designed to protect the fuel gas meter and surrounding piping from physical damage, including falling, moving, or migrating ice and snow. If an added structure is used, it must still provide access for service and comply with the IBC or the IRC."
- (2) IFGC, Section 409.5.3, is deleted.
- (3) In IFGC, Section 631.2, the following sentence is inserted before the first sentence: "Boilers and pressure vessels in Utah are regulated by the Utah Labor

Commission, Division of Boiler, Elevator and Coal Mine Safety, except those located in private residences or in apartment houses of less than five family units."  
Amended by Chapter 297, 2013 General Session

**15A-3-601. General provision.**

The following are adopted as amendments to the NEC to be applicable statewide:

- (1) The IRC provisions are adopted as the residential electrical standards applicable to installations applicable under the IRC. All other installations shall comply with the adopted NEC.
- (2) In NEC, Section 310.15(B)(7), the second sentence is deleted and replaced with the following: "For application of this section, the main power feeder shall be the feeder(s) between the main disconnect and the panelboard(s)."

Amended by Chapter 297, 2013 General Session

**15A-3-701. General provisions.**

The following is adopted as an amendment to the IECC to be applicable statewide:

- (1) In IECC, Section C202, the definition for "CONDITIONED SPACE" is deleted and replaced with the following: "CONDITIONED SPACE. An area, room or space enclosed within the building thermal envelope that is directly heated or cooled, or indirectly heated or cooled by any of the following means:
  1. Openings directly into an adjacent conditioned space.
  2. An un-insulated floor, ceiling or wall adjacent to a conditioned space.
  3. Un-insulated duct, piping or other heat or cooling source within the space."
- (2) In IECC, Section C404.4, a new exception is added as follows: "Exception: Heat traps, other than the arrangement of piping and fittings, shall be prohibited unless a means of controlling thermal expansion can be ensured as required in the IPC Section 607.3."
- (3) In IECC, Section R103.2, all words after the words "herein governed." are deleted and replaced with the following: "Construction documents include all documentation required to be submitted in order to issue a building permit."
- (4) In IECC, Section R202, the definition for "CONDITIONED SPACE" is deleted and replaced with the following: "CONDITIONED SPACE. An area, room or space enclosed within the building thermal envelope that is directly heated or cooled, or indirectly heated or cooled by any of the following means:
  1. Openings directly into an adjacent conditioned space.
  2. An un-insulated floor, ceiling or wall adjacent to a conditioned space.
  3. Un-insulated duct, piping or other heat or cooling source within the space."
- (5) In IECC, Section R303.3, all wording after the first sentence is deleted.
- (6) In IECC, Table R402.1.1 and Table R402.1.3, the rows for "climate zone 3", "climate zone 5 and Marine 4, and climate zone 6" are deleted and replaced and a new footnote j is added as follows:

"TABLE R402.1.1

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT<sup>a</sup>

| CLIMATE ZONE   | FENESTRATION U-FACTOR <sup>b</sup> | SKYLIGHT <sup>b</sup> U-FACTOR | GLAZED FENESTRATION SHGC <sup>b,c</sup> | CEILING R-VALUE | WOOD FRAME WALL R-VALUE   | MASS WALL R-VALUE <sup>d</sup> | FLOOR R-VALUE   | BASEMENT <sup>e</sup> WALL R-VALUE | SLAB <sup>f</sup> R-VALUE | CRAWL SPACE <sup>g</sup> WALL R-VALUE |
|----------------|------------------------------------|--------------------------------|---|-----------------|---------------------------|--------------------------------|-----------------|------------------------------------|---------------------------|---------------------------------------|
| 3              | 0.65                               | 0.65                           | 0.40                                    | 30              | 15                        | 5                              | 19              | 0                                  | 0                         | 5/13                                  |
| 5 and Marine 4 | 0.35                               | 0.60                           | NR                                      | 38              | 19 or 13 + 5 <sup>h</sup> | 13                             | 30 <sup>h</sup> | 10/13                              | 10, 2 ft                  | 10/13                                 |
| 6              | 0.35                               | 0.60                           | NR                                      | 49              | 19 or 13 + 5 <sup>h</sup> | 15                             | 30 <sup>h</sup> | 10/13                              | 10, 4 ft                  | 10/13                                 |

j. Log walls complying with ICC400 and with a minimum average wall thickness of 5" or greater shall be permitted in zones 5-8 when overall window glazing is .31 U-factor or lower, minimum heating equipment efficiency is 90 AFUE (gas) or 84 AFUE (oil), and all other component requirements are met.

TABLE R402.1.3 EQUIVALENT U-FACTORS<sup>a</sup>

| CLIMATE ZONE   | FENESTRATION U-FACTOR | SKYLIGHT U-FACTOR | CEILING U-FACTOR | FRAME WALL U-FACTOR | MASS WALL U-FACTOR <sup>b</sup> | FLOOR U-FACTOR | BASEMENT WALL U-FACTOR | CRAWL SPACE WALL U-FACTOR |
|----------------|-----------------------|-------------------|------------------|---------------------|---------------------------------|----------------|------------------------|---------------------------|
| 3              | 0.65                  | 0.65              | 0.035            | 0.082               | 0.141                           | 0.047          | 0.360                  | 0.136                     |
| 5 and Marine 4 | 0.35                  | 0.60              | 0.030            | 0.060               | 0.082                           | 0.033          | 0.059                  | 0.065                     |
| 6              | 0.35                  | 0.60              | 0.026            | 0.060               | 0.060                           | 0.033          | 0.059                  | 0.065                     |

- (7) In IECC, Section R402.2.1, the last sentence is deleted.
- (8) In IECC, Section R402.2.2, the last sentence is deleted.
- (9) In IECC, Section R402.3.3, the last sentence is deleted.
- (10) In IECC, Section R402.3.4, the last sentence is deleted.
- (11) In IECC, Section R402.4.1, in the first sentence, the word "and" is deleted and replaced with the word "or".
- (12) In IECC, Section R402.4.1.1, the last sentence is deleted and replaced with the following: "Where allowed by the building official, the builder may certify compliance to components criteria for items which may not be inspected during regularly scheduled inspections."
- (13) In IECC, Section R402.4.1.2, the following changes are made:
  - (a) In the first sentence, the words "in Zones 1 and 2, and 3 air changes per hour in Zone 3 through 8" are deleted.
  - (b) In the third sentence, the words "Where required by the building official," and the word "third" are deleted.
  - (c) The following sentence is inserted after the third sentence: "The following parties shall be approved to conduct testing: Parties certified by BPI or RESNET, or licensed contractors who have completed training provided

by Blower Door Test equipment manufacturers or other comparable training."

- (14) In IECC, Section R402.4.4, the last sentence is deleted.
- (15) In IECC, Section R403.2.2, the requirements for duct tightness testing are deleted and replaced with the following:
  - "1. Postconstruction test: Total leakage shall be less than or equal to 10 cfm (283 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor space when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
  - 2. Rough-in test: Total leakage shall be less than or equal to 10 cfm (283 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of at least 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 7.5 cfm (212 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area."
- (16) In IECC, Section R403.2.2, the exception for total leakage testing is deleted and replaced with the following: "Exception: The total leakage test is not required for systems with all air handlers and at least 50% of all ducts (measured by length) located entirely within the building thermal envelope."
- (17) In IECC, Section R403.2.3, the words "or plenums" are deleted.
- (18) In IECC, Section R403.4.2, the sentences for "3." and "9." and the last sentence are deleted.
- (19) In IECC, Section R403.5, the first sentence is deleted.
- (20) IECC, Section R404.1 and the exception are deleted, and R404.1.1 becomes R404.1.
- (21) In IECC, Table R405.5.2(1), the following changes are made under the column STANDARD REFERENCE DESIGN:
  - (a) In the row "Air exchange rate", the words "in Zones 1 and 2, and 3 air changes per hour in Zones 3 through 8" are deleted.
  - (b) In the row "Heating systems<sub>t, g</sub>", the standard reference design is deleted and replaced with the following:
    - "Fuel Type: same as proposed design Efficiencies:
      - Electric: air source heat pump with prevailing federal minimum efficiencies
      - Nonelectric furnaces: natural gas furnace with prevailing federal minimum efficiencies
      - Nonelectric boilers: natural gas boiler with prevailing federal minimum efficiencies
    - Capacity: sized in accordance with Section N1103.6"
  - (c) In the row "Cooling systems<sub>t, h</sub>" the words "As proposed" are deleted and replaced with the following:
    - "Fuel Type: Electric
    - Efficiency: in accordance with prevailing federal minimum standards"

- (d) In the row "Service water heating<sup>f, g, h, i</sup>", the words "As proposed" are deleted and replaced with the following:  
 "Fuel Type: same as proposed design  
 Efficiency: in accordance with prevailing federal minimum standards  
 Tank Temperature: 120<sup>o</sup>F"
  - (e) In the row "Thermal distribution systems" the word "none" is deleted and replaced with the following: "Thermal distribution system efficiency (DSE) of .080 shall be applied to both the heating and cooling system efficiencies."
  - (22) In IECC, Table R405.5.2(2), the number "0.80" is inserted under "Forced air systems" for "Distribution system components located in unconditioned space".
  - (23) The RESCheck Software adopted by the United States Department of Energy and modified to meet the requirements of this section shall be used to verify compliance with this section. The software shall address the Total UA alternative approach and account for Equipment Efficiency Trade-offs when applicable per the standard reference design as amended.
- Amended by Chapter 279, 2013 General Session

**15A-3-801. General provisions.**

The following are adopted as amendments to the IEBC to be applicable statewide:

- (1) In Section 202 the definition for existing buildings is deleted and replaced with the following:  
EXISTING BUILDING. A building lawfully erected under a prior adopted code, or one which is deemed a legal non-conforming building by the code official, and one which is not a dangerous building.
- (2) In Section 301.1 the exception is deleted.
- (3) Section 403.5 is deleted and replaced with the following" 403.5 Bracing for Unreinforced masonry parapets and other appendages upon reroofing. Where the intended alteration requires a permit for reroofing and involves removal of roofing materials from more than 25 percent of the roof area of a building assigned to Seismic Design Category, D, E, or F that has parapets constructed of unreinforced masonry or appendages such as cornices, spires, towers, tanks, signs, statuary, etc, the work shall include installation of bracing to resist out-of-plane seismic forces, unless an evaluation demonstrates compliance of such items. For purposes of this section, design seismic forces need not be taken greater than 75 percent of those that would be required for the design of similar nonstructural components in new buildings of similar purpose and location.
- (4) In Section 705.1, Exception number 3, the following is added at the end:  
"This exception does not apply if the existing facility is undergoing a change of occupancy classification."
- (5) Section 707.3.1 is deleted and replaced with the following" 707.3.1 Bracing for unreinforced masonry bearing wall parapets and other appendages. Where a permit is issued for reroofing more than 25 percent of the roof area of a building assigned to Seismic Design Category, D, E, or F that has parapets constructed of unreinforced masonry or appendages such as cornices, spires, towers, tanks, signs,

statuary, etc, the work shall include installation of bracing to resist the reduced International Building Code level seismic forces as specified in Section 301.1.4.2 of this code unless an evaluation demonstrates compliance of such items.

- (6) Section 1007.3.1 is deleted and replaced with the following:  
1007.3.1 Compliance with the International Building Code Level Seismic Forces. When a building or portion thereof is subject to a change of occupancy such that a change in the nature of the occupancy results in a higher risk category based on Table 1604.5 of the International Building Code or when such change of occupancy results in a design occupant load increase of 100% or more, the building shall conform to the seismic requirements of the International Building Code for the new risk category.  
Exceptions 1- 3 remain unchanged.  
4. Where the design occupant load increase is less than 25 occupants and the occupancy category does not change.
- (7) In Section 1012.7.3 exception 2 is deleted.
- (8) In Section 1012.8.2 number 7 is added as follows:  
7. When a change of occupancy in a building or portion of a building results in a Group R-2 occupancy, not less than 20 percent of the dwelling or sleeping units shall be Type B dwelling or sleeping units. These dwelling or sleeping units may be located on any floor of the building provided with an accessible route. Two percent, but not less than one unit, of the dwelling or sleeping units shall be Type A dwelling units.

**15A-3-801901. General provision.**

Mobile homes built before June 15, 1976 that are subject to relocation, building alteration, remodeling, or rehabilitation shall comply with the following:

- (1) Related to exits and egress windows:
- (a) Egress windows. The home has at least one egress window in each bedroom, or a window that meets the minimum specifications of the U.S. Department of Housing and Urban Development's (HUD) Manufactured Homes Construction and Safety Standards (MHCSS) program as set forth in 24 C.F.R. Parts 3280 and 3282, MHCSS 3280.106 and 3280.404 for manufactured homes. These standards require the window to be at least 22 inches in the horizontal or vertical position in its least dimension and at least five square feet in area. The bottom of the window opening shall be no more than 36 inches above the floor, and the locks and latches and any window screen or storm window devices that need to be operated to permit exiting shall not be located more than 54 inches above the finished floor.
- (b) Exits. The home is required to have two exterior exit doors, located remotely from each other, as required in MHCSS 3280.105. This standard requires that single-section homes have the doors no less than 12 feet, center-to-center, from each other, and multisection home doors no less than 20 feet center-to-center from each other when measured in a straight line, regardless of the length of the

path of travel between the doors. One of the required exit doors must be accessible from the doorway of each bedroom and no more than 35 feet away from any bedroom doorway. An exterior swing door shall have a 28-inch-wide by 74-inch-high clear opening and sliding glass doors shall have a 28-inch-wide by 72-inch-high clear opening. Each exterior door other than screen/storm doors shall have a key-operated lock that has a passage latch; locks shall not require the use of a key or special tool for operation from the inside of the home.

- (2) Related to flame spread:
  - (a) Walls, ceilings, and doors. Walls and ceilings adjacent to or enclosing a furnace or water heater shall have an interior finish with a flame-spread rating not exceeding 25. Sealants and other trim materials two inches or less in width used to finish adjacent surfaces within these spaces are exempt from this provision, provided all joints are supported by framing members or materials with a flame spread rating of 25 or less. Combustible doors providing interior or exterior access to furnace and water heater spaces shall be covered with materials of limited combustibility (i.e., 5/16-inch gypsum board, etc.), with the surface allowed to be interrupted for louvers ventilating the space. However, the louvers shall not be of materials of greater combustibility than the door itself (i.e., plastic louvers on a wooden door). Reference MHCSS 3280.203.
  - (b) Exposed interior finishes. Exposed interior finishes adjacent to the cooking range (surfaces include vertical surfaces between the range top and overhead cabinets, the ceiling, or both) shall have a flame-spread rating not exceeding 50, as required by MHCSS 3280.203. Backsplashes not exceeding six inches in height are exempted. Ranges shall have a vertical clearance above the cooking top of not less than 24 inches to the bottom of combustible cabinets, as required by MHCSS 3280.204(e).
- (3) Related to smoke detectors:
  - (a) Location. A smoke detector shall be installed on any ceiling or wall in the hallway or space communicating with each bedroom area between the living area and the first bedroom door, unless a door separates the living area from that bedroom area, in which case the detector shall be installed on the living-area side, as close to the door as practicable, as required by MHCSS 3280.208. Homes with bedroom areas separated by any one or combination of common-use areas such as a kitchen, dining room, living room, or family room (but not a bathroom or utility room) shall be required to have one detector for each bedroom area. When located in the hallways, the detector shall be between the return air intake and the living areas.

- (b) Switches and electrical connections. Smoke detectors shall have no switches in the circuit to the detector between the over-current protection device protecting the branch circuit and the detector. The detector shall be attached to an electrical outlet box and connected by a permanent wiring method to a general electrical circuit. The detector shall not be placed on the same branch circuit or any circuit protected by a ground-fault circuit interrupter.
- (4) Related to solid-fuel-burning stoves/fireplaces:
  - (a) Solid-fuel-burning fireplaces and fireplace stoves. Solid-fuel-burning, factory-built fireplaces, and fireplace stoves may be used in manufactured homes, provided that they are listed for use in manufactured homes and installed according to their listing/manufacturer's instructions and the minimum requirements of MHCSS 3280.709(g).
  - (b) Equipment. A solid-fuel-burning fireplace or fireplace stove shall be equipped with an integral door or shutters designed to close the fire chamber opening and shall include complete means for venting through the roof, a combustion air inlet, a hearth extension, and means to securely attach the unit to the manufactured home structure.
    - (i) Chimney. A listed, factory-built chimney designed to be attached directly to the fireplace/fireplace stove and equipped with, in accordance with the listing, a termination device and spark arrester, shall be required. The chimney shall extend at least three feet above the part of the roof through which it passes and at least two feet above the highest elevation of any part of the manufactured home that is within 10 feet of the chimney.
    - (ii) Air-intake assembly and combustion-air inlet. An air-intake assembly shall be installed in accordance with the terms of listings and the manufacturer's instruction. A combustion-air inlet shall conduct the air directly into the fire chamber and shall be designed to prevent material from the hearth from dropping on the area beneath the manufactured home.
    - (iii) Hearth. The hearth extension shall be of noncombustible material that is a minimum of 3/8-inch thick and shall extend a minimum of 16 inches in front and eight inches beyond each side of the fireplace/fireplace stove opening. The hearth shall also extend over the entire surface beneath a fireplace stove and beneath an elevated and overhanging fireplace.
- (5) Related to electrical wiring systems:
  - (a) Testing. All electrical systems shall be tested for continuity in accordance with MHCSS 3280.810, to ensure that metallic parts are properly bonded; tested for operation, to demonstrate that all

- equipment is connected and in working order; and given a polarity check, to determine that connections are proper.
- (b) 5.2 Protection. The electrical system shall be properly protected for the required amperage load. If the unit wiring employs aluminum conductors, all receptacles and switches rated at 20 amperes or less that are directly connected to the aluminum conductors shall be marked CO/ALA. Exterior receptacles, other than heat tape receptacles, shall be of the ground-fault circuit interrupter (GFI) type. Conductors of dissimilar metals (copper/aluminum or copper-clad aluminum) must be connected in accordance with NEC, Section 110-14.
- (6) Related to replacement furnaces and water heaters:
- (a) Listing. Replacement furnaces or water heaters shall be listed for use in a manufactured home. Vents, roof jacks, and chimneys necessary for the installation shall be listed for use with the furnace or water heater.
  - (b) Securement and accessibility. The furnace and water heater shall be secured in place to avoid displacement. Every furnace and water heater shall be accessible for servicing, for replacement, or both as required by MHCSS 3280.709(a).
  - (c) Installation. Furnaces and water heaters shall be installed to provide complete separation of the combustion system from the interior atmosphere of the manufactured home, as required by MHCSS.
    - (i) Separation. The required separation may be achieved by the installation of a direct-vent system (sealed combustion system) furnace or water heater or the installation of a furnace and water heater venting and combustion systems from the interior atmosphere of the home. There shall be no doors, grills, removable access panels, or other openings into the enclosure from the inside of the manufactured home. All openings for ducts, piping, wiring, etc., shall be sealed.
    - (ii) Water heater. The floor area in the area of the water heater shall be free from damage from moisture to ensure that the floor will support the weight of the water heater.

Amended by Chapter 297, 2013 General Session

**15A-4-101. General provision.**

The amendments in this part are adopted as amendments to the IBC to be applicable to the specified jurisdiction.

Enacted by Chapter 14, 2011 General Session

**15A-4-102. Amendments to IBC applicable to Brian Head Town.**

The following amendment is adopted as an amendment to the IBC for Brian Head Town, Subsection 15A-3-104(6) that amends IBC, Section (F)903.2.8, is deleted and replaced with the following: "(F)903.2.8 Group R. An automatic sprinkler system

installed in accordance with Section (F)903.3 shall be provided throughout all buildings with a Group R fire area.

Exception:

1. Detached one and two family dwellings and multiple single-family dwellings (townhouses) constructed in accordance with the International Residential Code for one and two-family dwellings. Except that an automatic fire sprinkler system shall be installed in all one- and two-family dwellings and townhouses over 3,000 square feet in size of defined living space (garage is excluded from defined living space) in accordance with Section (F)903.3.1 of the International Building Code. In areas not served by Brian Head Town culinary water services, NFPA Standard 1142 for water supplies for rural fire fighting shall apply. Any one- and two-family dwellings and townhouses that are difficult to locate or access, as determined by the authority having jurisdiction, shall be required to follow the guidelines as set forth in the NFPA Standard 1142 regardless of the size of the building.
2. Group R-4 fire areas not more than 4,500 gross square feet and not containing more than 16 residents, provided the building is equipped throughout with an approved fire alarm system that is interconnected and receives its primary power from the building wiring and a commercial power system."

Enacted by Chapter 14, 2011 General Session

**15A-4-103. Amendments to IBC applicable to City of Farmington.**

The following amendments are adopted as amendments to the IBC for the City of Farmington:

- (1) A new IBC, Section (F) 903.2.13, is added as follows: "(F) 903.2.13 Group R, Division 3 Occupancies. An automatic sprinkler system shall be installed throughout every dwelling in accordance with NFPA 13D, when any of the following conditions are present:
  1. The structure is over two stories high, as defined by the building code;
  2. The nearest point of structure is more than 150 feet from the public way;
  3. The total floor area of all stories is over 5,000 square feet (excluding from the calculation the area of the basement and/or garage); or
  4. The structure is located on a street constructed after March 1, 2000, that has a gradient over 12% and, during fire department response, access to the structure will be gained by using such street. (If the access is intended to be from a direction where the steep gradient is not used, as determined by the Chief, this criteria shall not apply). Such sprinkler system shall be installed in basements, but need not be installed in garages, under eaves or in enclosed attic spaces, unless required by the Chief."
- (2) A new IBC, Section 907.9, is added as follows: "907.9 Alarm Circuit

Supervision. Alarm circuits in alarm systems provided for commercial uses (defined as other than one- and two-family dwellings and townhouses) shall have Class "A" type of supervision. Specifically, Type "B" or End-of-line resistor and horn supervised systems are not allowed."

- (3) In NFPA Section 13-07, new sections are added as follows: "6.8.6 FDC Security Locks Required. All Fire Department connections installed for fire sprinkler and standpipe systems shall have approved security locks.

6.10 Fire Pump Disconnect Signs. When installing a fire pump, red plastic laminate signs shall be installed in the electrical service panel, if the pump is wired separately from the main disconnect. These signs shall state: "Fire Pump Disconnect ONLY" and "Main Breaker DOES NOT Shut Off Fire Pump".

22.1.6 Plan Preparation Identification. All plans for fire sprinkler systems, except for manufacturer's cut sheets of equipment shall include the full name of the person who prepared the drawings. When the drawings are prepared by a registered professional engineer, the engineer's signature shall also be included.

22.2.2.3 Verification of Water Supply:

22.2.2.3.1 Fire Flow Tests. Fire flow tests for verification of water supply shall be conducted and witnessed for all applications other than residential unless directed otherwise by the Chief. For residential water supply, verification shall be determined by administrative procedure.

22.2.2.3.2 Accurate and Verifiable Criteria. The design calculations and criteria shall include an accurate and verifiable water supply.

24.2.3.7 Testing and Inspection of Systems. Testing and inspection of sprinkler systems shall include, but are not limited to:

Commercial:

FLUSH-Witness Underground Supply Flush;

ROUGH Inspection-Installation of Riser, System Piping,

Head Locations and all Components, Hydrostatic

Pressure Test;

FINAL Inspection-Head Installation and Escutcheons,

Inspectors Test Location and Flow, Main Drain Flow,

FDC Location and Escutcheon, Alarm Function,

Spare Parts, Labeling of Components and Signage,

System Completeness, Water Supply Pressure

Verification, Evaluation of Any Unusual Parameter."

Enacted by Chapter 14, 2011 General Session

**15A-4-104. Amendments to IBC applicable to City of North Salt Lake.**

The following amendment is adopted as an amendment to the IBC for the City of North Salt Lake, a new IBC, Section (F)903.2.13, is added as follows: "(F)903.2.13 Group R, Division 3 Occupancies. An automatic sprinkler system shall be installed throughout every dwelling in accordance with NFPA 13D, when the following condition is present:

1. The structure is over 6,200 square feet. Such sprinkler system shall be installed in basements, but need not be installed in garages, under eaves, or in enclosed attic spaces, unless required by the fire chief."

Enacted by Chapter 14, 2011 General Session

**15A-4-105. Amendments to IBC applicable to Park City Corporation or Park City Fire District.**

- (1) The following amendment is adopted as an amendment to the IBC for the Park City Corporation, in IBC, Section 3409.2, exception 3, is modified to read as follows: "3. Designated as historic under a state or local historic preservation program."
- (2) The following amendments are adopted as amendments to the IBC for the Park City Corporation and Park City Fire District:
  - (a) IBC, Section (F)903.2, is deleted and replaced with the following: "(F)903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the location described in this section.
    - All new construction having more than 6,000 square feet on any one floor, except R-3 occupancy.
    - All new construction having more than two (2) stories, except R-3 occupancy.
    - All new construction having three (3) or more dwelling units, including units rented or leased, and including condominiums or other separate ownership.
    - All new construction in the Historic Commercial Business zone district, regardless of occupancy.
    - All new construction and buildings in the General Commercial zone district where there are side yard setbacks or where one or more side yard setbacks is less than two and one half (2.5) feet per story of height.
    - All existing building within the Historic District Commercial Business zone."
  - (b) In IBC, Table 1505.1, new footnotes d and e are added as follows:
    - "d. Wood roof covering assemblies are prohibited in R-3 occupancies in areas with a combined rating of more than 11 using Tables 1505.1.1 and 1505.1.2 with a score of 9 for weather factors.
    - e. Wood roof covering assemblies shall have a Class A rating in occupancies other than R-3 in areas with a combined rating of more than 11 using Tables 1505.1.1 and 1505.1.2 with a score of 9 for weather factors. The owner of the building shall enter into a written and recorded agreement that the Class A rating of the roof covering assembly will not be altered through any type of maintenance process.

| TABLE 1505.1.1                 |                           |                             |
|--------------------------------|---------------------------|-----------------------------|
| WILDFIRE HAZARD SEVERITY SCALE |                           |                             |
| RATING                         | SLOPE                     | VEGETATION                  |
| 1                              | less than or equal to 10% | Pinion-juniper              |
| 2                              | 10.1 - 20%                | Grass-sagebrush             |
| 3                              | greater than 20%          | Mountain brush or softwoods |

| TABLE 1505.1.2                        |  |  |
|---------------------------------------|--|--|
| PROHIBITION/ALLOWANCE OF WOOD ROOFING |  |  |
| Rating                                | R-3 Occupancy  | All Other Occupancies  |
| Less than or equal to 11              | Wood roof covering assemblies per Table 1505.1 are allowed | Wood roof covering assemblies per Table 1505.1 are allowed       |
| Greater than or equal to 12           | Wood roof covering is prohibited                           | Wood roof covering assemblies with a Class A rating are allowed" |

(c) IBC, Appendix C, is adopted.

Enacted by Chapter 14, 2011 General Session

**15A-4-106. Amendments to IBC applicable to Salt Lake City.**

The following amendment is adopted as an amendment to the IBC for Salt Lake City, in IBC, Section 1008.1.9.7, a new exception is added as follows: "Exception: In International Airport areas designated as Group "A" Occupancies where national security interests are present, the use of panic hardware with delayed egress is allowed when all provisions of Section 1008.1.9.7 are met and under item #4 1 second is changed to 2 seconds."

Enacted by Chapter 14, 2011 General Session

**15A-4-107. Amendments to IBC applicable to Sandy City.**

The following amendments are adopted as amendments to the IBC for Sandy City:

- (1) A new IBC, Section (F)903.2.13, is added as follows: "(F)903.2.13 An automatic sprinkler system shall be installed in accordance with NFPA 13 throughout buildings containing all occupancies where fire flow exceeds 2,000 gallons per minute, based on Table B105.1 of the 2009 International Fire Code. Exempt locations as indicated in Section 903.3.1.1.1 are allowed.

Exception: Automatic fire sprinklers are not required in buildings used solely for worship, Group R Division 3, Group U occupancies and buildings complying with the International Residential Code unless otherwise required by the International Fire Code.

- (2) A new IBC, Appendix L, is added and adopted as follows: "Appendix L

BUILDINGS AND STRUCTURES CONSTRUCTED IN AREAS DESIGNATED AS WILDLAND-URBAN INTERFACE AREAS  
AL 101.1 General. Buildings and structures constructed in areas designated as Wildland-Urban Interface Areas by Sandy City shall be constructed using ignition resistant construction as determined by the Fire Marshal. Section 502 of the 2006 International Wildland-Urban Interface Code (IWUIC), as promulgated by the International Code Council, shall be used to determine Fire Hazard Severity. The provisions listed in Chapter 5 of the 2006 International Wildland-Urban Interface Code, as modified herein, shall be used to determine the requirements for Ignition Resistant Construction.

- (i) In Section 504 of the IWUIC Class I IGNITION-RESISTANT CONSTRUCTION a new Section 504.1.1 is added as follows: "504.1.1 General. Subsections 504.5, 504.6, and 504.7 shall only be required on the exposure side of the structure, as determined by the Fire Marshal, where defensible space is less than 50 feet as defined in Section 603 of the 2006 International Wildland-Urban Interface Code.
- (ii) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION Subsections 505.5 and 505.7 are deleted."

Enacted by Chapter 14, 2011 General Session

**15A-4-201. General provision.**

- (1) The amendments in this part are adopted as amendments to the IRC to be applicable to specified jurisdiction.
- (2) A local amendment to the following which may be applied to detached one and two family dwellings and multiple single family dwellings shall be applicable to the corresponding provisions of the IRC for the local jurisdiction to which the local amendment has been made:
  - (a) IBC under Part 1, Local Amendments to International Building Code;
  - (b) IPC under Part 3, Local Amendments to International Plumbing Code;
  - (c) IMC under Part 4, Local Amendments to International Mechanical Code;
  - (d) IFGC under Part 5, Local Amendments to International Fuel Gas Code;
  - (e) NEC under Part 6, Local Amendments to National Electrical Code; and
  - (f) IECC under Part 7, Local Amendments to International Energy Conservation Code.

Amended by Chapter 189, 2014 General Session

**15A-4-202. Amendments to IRC applicable to Brian Head Town.**

The following amendment is adopted as an amendment to the IRC for Brian Head Town, a new IRC, Section R324, is added as follows: "Section R324 Automatic Sprinkler Systems. An automatic fire sprinkler system shall be installed in all one- and two-family dwellings and townhouses over 3,000 square feet in size of defined living space (garage is excluded from defined living space) in accordance with Section (F)903.3.1 of the International Building Code. In areas not served by Brian Head Town

culinary water services, NFPA Standard 1142 for water supplies for rural fire fighting shall apply. Any one- and two-family dwellings and townhouses that are difficult to locate or access, as determined by the authority having jurisdiction, shall be required to follow the guidelines as set forth in the NFPA Standard 1142 regardless of the size of the building."

Enacted by Chapter 14, 2011 General Session

**15A-4-203. Amendments to IRC applicable to City of Farmington.**

The following amendments are adopted as amendments to the IRC for the City of Farmington:

(1) In IRC, R324 Automatic Sprinkler Systems, new IRC, Sections R324.1 and R324.2 are added as follows: "R324.1 When required. An automatic sprinkler system shall be installed throughout every dwelling in accordance with NFPA 13D, when any of the following conditions are present:

1. the structure is over two stories high, as defined by the building code;
2. the nearest point of structure is more than 150 feet from the public way;
3. the total floor area of all stories is over 5,000 square feet (excluding from the calculation the area of the basement and/or garage); or
4. the structure is located on a street constructed after March 1, 2000 that has a gradient over 12% and, during fire department response, access to the structure will be gained by using such street. (If the access is intended to be from a direction where the steep gradient is not used, as determined by the Chief, this criteria shall not apply).

R324.2 Installation requirements and standards. Such sprinkler system shall be installed in basements, but need not be installed in garages, under eaves or in enclosed attic spaces, unless required by the Chief. Such system shall be installed in accordance with NFPA 13D."

(2) In IRC, Chapter 44, the following NFPA referenced standards are added as follows:

|        | "TABLE   |
|--------|--|
| ADD    |  |
| 13D-07 | Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes, as amended by these rules |
| 13R-07 | Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height"             |

(3) In NFPA, Section 13D-07, new sections are added as follows: "1.15

Reference to NFPA 13D. All references to NFPA 13D in the codes, ordinances, rules, or regulations governing NFPA 13D systems shall be read to refer to "modified NFPA 13D" to reference the NFPA 13D as amended by additional regulations adopted by Farmington City.

4.9 Testing and Inspection of Systems. Testing and inspection of sprinkler systems shall include, but are not limited to:

Residential:

ROUGH Inspection-Verify Water Supply Piping Size and Materials, Installation of Riser, System Piping, Head Locations and all Components, Hydrostatic Pressure Test.

FINAL Inspection-Inspectors Test Flow, System Completeness, Spare Parts, Labeling of Components and Signage, Alarm

Function, Water Supply Pressure Verification.

5.2.2.3 Exposed Piping of Metal. Exposed Sprinkler Piping material in rooms of dwellings shall be of Metal.

EXCEPTIONS:

- a. CPVC Piping is allowed in unfinished mechanical and storage rooms only when specifically listed for the application as installed.
- b. CPVC Piping is allowed in finished, occupied rooms used for sports courts or similar uses only when the ceiling/floor framing above is constructed entirely of non-combustible materials, such as a concrete garage floor on metal decking.

5.2.2.4 Water Supply Piping Material. Water Supply Piping from where the water line enters the dwelling adjacent to and inside the foundation to the fire sprinkler contractor point-of-connection shall be metal, suitable for potable plumbing systems. See Section 7.1.4 for valve prohibition in such piping. Piping down stream from the point-of-connection used in the fire sprinkler system, including the riser, shall conform to NFPA 13D standards.

5.4 Fire Pump Disconnect Signs. When installing a Fire Pump, Red Plastic Laminate Signs shall be installed in the electrical service panel, if the pump is wired separately from the main disconnect. These signs shall state: "Fire Pump Disconnect ONLY" and "Main Breaker DOES NOT Shut Off Fire Pump".

7.1.4 Valve Prohibition. NFPA 13D, Section 7.1 is hereby modified such that NO VALVE is permitted from the City Water Meter to the Fire Sprinkler Riser Control.

7.6.1 Mandatory Exterior Alarm. Every dwelling that has a fire sprinkler system shall have an exterior alarm, installed in an approved location. The alarm shall be of the combination horn/strobe or electric bell/strobe type, approved for outdoor use.

8.1.05 Plan Preparation Identification. All plans for fire sprinkler systems, except for manufacturer's cut sheets of equipment, shall include the full name of the person who prepared the drawings. When the

drawings are prepared by a registered professional engineer, the engineer's signature shall also be included.

8.7 Verification of Water Supply:

8.7.1 Fire Flow Tests: Fire Flow Tests for verification of Water Supply shall be conducted and witnesses for all applications other than residential, unless directed otherwise by the Chief. For residential Water Supply, verification shall be determined by administrative procedure.

8.7.2 Accurate and Verifiable Criteria. The design calculations and criteria shall include an accurate and verifiable Water Supply.

Enacted by Chapter 14, 2011 General Session

**15A-4-204. Amendments to IRC applicable to Morgan City Corporation or Morgan County.**

- (1) The following amendment is adopted as an amendment to the IRC for the Morgan City Corporation, in IRC, Section R105.2, Work Exempt From Permit, a new list item number 11 is added as follows: "11. Structures intended to house farm animals, or for the storage of feed associated with said farm animals when all the following criteria are met:
  - a. The parcel of property involved is zoned for the keeping of farm animals or has grandfathered animal rights.
  - b. The structure is setback not less than 50 feet from the rear or side of dwellings, and not less than 10 feet from property lines and other structures.
  - c. The structure does not exceed 1,000 square feet of floor area, and is limited to 20 feet in height. Height is measured from the average grade to the highest point of the structure.
  - d. Before construction, a site plan is submitted to, and approved by the building official. Electrical, plumbing, and mechanical permits shall be required when that work is included in the structure."
- (2) The following amendment is adopted as an amendment to the IRC for Morgan County, in IRC, Section R105.2, a new list item number 11 is added as follows:

"11. Structures intended to house farm animals, or for the storage of feed associated with said farm animals when all the following criteria are met:

  - a. The parcel of property involved is zoned for the keeping of farm animals or has grandfathered animal rights.
  - b. The structure is set back not less than required by the Morgan County Zoning Ordinance for such structures, but not less than 10 feet from property lines and other structures.
  - c. The structure does not exceed 1,000 square feet of floor area, and is limited to 20 feet in height. Height is measured from the average grade to the highest point of the structure.
  - d. Before construction, a Land Use Permit must be applied for, and approved, by the Morgan County Planning and Zoning Department.

Electrical, plumbing, and mechanical permits shall be required when that work is included in the structure."

Enacted by Chapter 14, 2011 General Session

**15A-4-205. Amendments to IRC applicable to City of North Salt Lake.**

The following amendment is adopted as an amendment to the IRC for the City of North Salt Lake, a new IRC, Section R324, is added as follows: "Section R324 Automatic Sprinkler System Requirements. R324.1 When Required. An automatic sprinkler system shall be installed throughout every dwelling when the following condition is present:

1. The structure is over 6,200 square feet.  
R324.2 Installation requirements and standards. Such sprinkler system shall be installed in basements, but need not be installed in garages, under eaves, or in enclosed attic spaces, unless required by the fire chief. Such system shall be installed in accordance with NFPA 13D."

Enacted by Chapter 14, 2011 General Session

**15A-4-206. Amendments to IRC applicable to Park City Corporation or Park City Fire District.**

- (1) The following amendment is adopted as an amendment to the IRC for the Park City Corporation, Appendix P, of the 2006 IRC is adopted.
- (2) The following amendments are adopted as amendments to the IRC for Park City Corporation and Park City Fire District:
  - (a) IRC, Section R905.7, is deleted and replaced with the following: "R905.7 Wood shingles. The installation of wood shingles shall comply with the provisions of this section.  
Wood roof covering is prohibited in areas with a combined rating of more than 11 using the following tables with a score of 9 for weather factors.

| TABLE                          |                            |                             |
|--------------------------------|----------------------------|-----------------------------|
| WILDFIRE HAZARD SEVERITY SCALE |                            |                             |
| RATING                         | SLOPE                      | VEGETATION                  |
| 1                              | less than or equal to 10%  | Pinion-juniper              |
| 2                              | 10.1 - 20%                 | Grass-sagebrush             |
| 3                              | greater than 20%           | Mountain brush or softwoods |
| PROHIBITION/EXEMPTION TABLE    |                            |                             |
| RATING                         | WOOD ROOF PROHIBITION      |                             |
| less than or equal to 11       | wood roofs are allowed     |                             |
| greater than or equal to 12    | wood roofs are prohibited" |                             |

- (b) IRC, Section R905.8, is deleted and replaced with the following: "R905.8

Wood Shakes. The installation of wood shakes shall comply with the provisions of this section. Wood roof covering is prohibited in areas with a combined rating of more than 11 using the following tables with a score of 9 for weather factors.

| TABLE                          |                            |                             |
|--------------------------------|----------------------------|-----------------------------|
| WILDFIRE HAZARD SEVERITY SCALE |                            |                             |
| RATING                         | SLOPE                      | VEGETATION                  |
| 1                              | less than or equal to 10%  | Pinion-juniper              |
| 2                              | 10.1 - 20%                 | Grass-sagebrush             |
| 3                              | greater than 20%           | Mountain brush or softwoods |
| PROHIBITION/EXEMPTION TABLE    |                            |                             |
| RATING                         | WOOD ROOF PROHIBITION      |                             |
| less than or equal to 11       | wood roofs are allowed     |                             |
| greater than or equal to 12    | wood roofs are prohibited" |                             |

(c) Appendix K is adopted.

Enacted by Chapter 14, 2011 General Session

**15A-4-207. Amendments to IRC applicable to Sandy City.**

The following amendment is adopted as an amendment to the IRC for Sandy City, a new IRC, Section R324, is added as follows: "Section R324 IGNITION RESISTANT CONSTRUCTION

R324.1 General. Buildings and structures constructed in areas designated as Wildland-Urban Interface Areas by Sandy City shall be constructed using ignition resistant construction as determined by the Fire Marshal. Section 502 of the 2006 International Wildland-Urban Interface Code (IWUIC), as promulgated by the International Code Council, shall be used to determine Fire Hazard Severity. The provisions listed in Chapter 5 of the 2006 IWUIC, as modified herein, shall be used to determine the requirements for Ignition Resistant Construction.

- (i) In Section 504 of the IWUIC Class I IGNITION-RESISTANT CONSTRUCTION a new Section 504.1.1 is added as follows:  
504.1.1 General. Subsections 504.5, 504.6, and 504.7 shall only be required on the exposure side of the structure, as determined by the Fire Marshal, where defensible space is less than 50 feet as defined in Section 603 of the 2006 IWUIC.
- (ii) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION

Subsections 505.5 and 505.7 are deleted."

Enacted by Chapter 14, 2011 General Session

**15A-4-301. General provision.**

The amendments in this part are adopted as amendments to the IPC to be applicable to specified jurisdiction.

Enacted by Chapter 14, 2011 General Session

**15A-4-303. Amendments to IPC applicable to South Jordan.**

The following amendments are adopted as amendments to the IPC for South Jordan:

- (1) IPC, Section 312.10.2, is deleted and replaced with the following:  
"312.10.2 Testing. Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection backflow prevention assemblies, double check detector fire protection backflow prevention assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA-B64.10, or CSA-B64.10.1. Assemblies, other than the reduced pressure principle assembly, protecting lawn irrigation systems that fail the annual test shall be replaced with a reduced pressure principle assembly."
- (2) IPC, Section 608.16.5, is deleted and replaced with the following:  
"608.16.5 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by a reduced pressure principle backflow preventer."

Enacted by Chapter 14, 2011 General Session

**15A-4-401. General provision.**

No local amendments to the IMC are adopted.

Enacted by Chapter 14, 2011 General Session

**15A-4-501. General provision.**

No local amendments to the IFGC are adopted.

Enacted by Chapter 14, 2011 General Session

**15A-4-601. General provision.**

No local amendments to the NEC are adopted.

Enacted by Chapter 14, 2011 General Session

**15A-4-701. General provision.**

No local amendments to the IECC are adopted.

Enacted by Chapter 14, 2011 General Session

**15A-5-101. Title -- Adoption of code.**

In accordance with Chapter 1, Part 4, State Fire Code Administration Act, the Legislature repeals the State Fire Code in effect on July 1, 2010, and adopts this

chapter as the State Fire Code.  
Enacted by Chapter 14, 2011 General Session

**15A-5-102. Definitions.**

As used in this chapter:

- (1) "Appreciable depth" means a depth greater than 1/4 inch.
- (2) "AHJ" means "authority having jurisdiction," which is:
  - (a) the State Fire Marshal;
  - (b) an authorized deputy of the State Fire Marshal; or
  - (c) the local fire enforcement authority.
- (3) "Division" means the State Fire Marshal Division created in Section 53-7-103.
- (4)
  - (a) "Dwelling Unit" means one or more rooms arranged for the use of one or more individuals living together, as in a single housekeeping unit normally having cooking, living, sanitary, and sleeping facilities.
  - (b) "Dwelling unit" includes a hotel room, dormitory room, apartment, condominium, sleeping room in a nursing home, or similar living unit.
- (5) "IFC" means the edition of the International Fire Code adopted under Section 15A-5-103.
- (6) "NFPA" means the edition of the National Fire Protection Association adopted under Section 15A-5-103.
- (7) "Premixed" means the state of an antifreeze and water solution that results from the solution being prepared by the manufacturer with a quality control procedure that ensures that the antifreeze and water solution does not separate.
- (8) "UL" means Underwriters Laboratories, Inc.

Amended by Chapter 148, 2012 General Session

**15A-5-103. Nationally recognized codes incorporated by reference.**

The following codes are incorporated by reference into the State Fire Code:

- (1) the International Fire Code, 2012 edition, excluding appendices, as issued by the International Code Council, Inc., except as amended by Part 2, Statewide Amendments and Additions to International Fire Code Incorporated as Part of State Fire Code;
- (2) National Fire Protection Association, NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2011 edition, except as amended by Part 3, Statewide Amendments and Additions to National Fire Protection Association Incorporated as Part of State Fire Code; and
- (3) National Fire Protection Association, NFPA 1403, Standard on Live Fire Training Evolutions, 2012 edition, except as amended by Part 3, Statewide Amendments and Additions to National Fire Protection Association Incorporated as Part of State Fire Code.

Amended by Chapter 189, 2014 General Session

**15A-5-201. General provisions.**

The amendments and additions in this part to the IFC are adopted for application statewide.

Enacted by Chapter 14, 2011 General Session

**15A-5-202. Amendments and additions to IFC related to administration, permits, definitions, general, and emergency planning.**

- (1) For IFC, Chapter 1, Scope and Administration:
  - (a) IFC, Chapter 1, Section 102.9, is amended by adding the following immediately before the period: "on an emergency basis if:
    - (a) the facts known to the fire code official show that an immediate and significant danger to the public health, safety, or welfare exists; and
    - (b) the threat requires immediate action by the fire code official.
- (2) In issuing its emergency order, the fire code official shall:
  - (a) limit the order to require only the action necessary to prevent or avoid the danger to the public health, safety, or welfare; and
  - (b) give immediate notice to the persons who are required to comply with the order, that includes a brief statement of the reasons for the fire code official's order.
- (3) If the emergency order issued under this section will result in the continued infringement or impairment of any legal right or interest of any party, the party shall have a right to appeal the fire code official's order in accordance with IFC, Chapter 1, Section 108."
  - (b) IFC, Chapter 1, Section 105.6.16, Flammable and combustible liquids, is amended to add the following section: "12. The owner of an underground tank that is out of service for longer than one year shall receive a Temporary Closure Notice from the Department of Environmental Quality and a copy shall be given to the AHJ."
  - (c) IFC, Chapter 1, Section 109.3, Notice of violation, is amended as follows: On line three, after the words "is in violation of this code," insert in the section the phrase "or other pertinent laws or ordinances".
- (2) For IFC, Chapter 2, Definitions:
  - (a) IFC, Chapter 2, Section 202, General Definitions, the following definition is added for Ambulatory Surgical Center: "AMBULATORY SURGICAL CENTER. A building or portion of a building licensed by the Utah Department of Health where procedures are performed that may render patients incapable of self preservation where care is less than 24 hours."
  - (b) IFC, Chapter 2, Section 202, General Definitions, FOSTER CARE FACILITIES is amended as follows: the word "Foster" is changed to the word "Child."
  - (c) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Educational Group E, Day care facilities, is amended as follows: On line three delete the word "five" and replace it with the word "four". On line four after the word "supervision" add the words "child care centers."

- (d) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Educational Group E, Five or fewer children is amended as follows: On line one the word "five" is deleted and replaced with the word "four" in both places.
- (e) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Educational Group E, Five or fewer children in a dwelling unit, the word "five" is deleted and replaced with the word "four" in both places.
- (f) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Educational Group E, a new section is added as follows: "Child Day Care -- Residential Certificate or a Family License. Areas used for child day care purposes with a Residential Certificate R430-50 or a Family License, as defined in Utah Administrative Code, R430-90, Licensed Family Child Care, may be located in a Group R-2 or R-3 occupancy as provided in Residential Group R-3, or shall comply with the International Residential Code in accordance with Section R101.2."
- (g) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Educational Group E, a new section is added as follows: "Child Care Centers. Areas used for Hourly Child Care Centers, as defined in Utah Administrative Code, R430-60, Child Care Center as defined in Utah Administrative Code, R430-100, or Out of School Time Programs, as defined in Utah Administrative Code, R430-70, may be classified as accessory occupancies."
- (h) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Institutional Group I, Group I-1, is amended as follows: On line 8 add "Type I" in front of the words "Assisted living facilities".
- (i) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Institutional Group I, Five or fewer persons receiving care is amended as follows: On line four after "International Residential Code" the rest of the section is deleted.
- (j) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Institutional Group I, Group I-2, is amended as follows:
  - (i) On line three delete the word "five" and insert the word "three".
  - (ii) On line six the word "foster" is deleted and replaced with the word "child".
  - (iii) On line 10, after the words "Psychiatric hospitals", add the following to the list: "both intermediate nursing care and skilled nursing care facilities, ambulatory surgical centers with five or more operating rooms, and Type II assisted living facilities. Type II assisted living facilities with five or fewer persons shall be classified as a Group R-4. Type II assisted living facilities with at least six and not more than 16 residents shall be classified as a Group I-1 facility".
- (k) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Institutional Group I, Group I-4, Day care facilities, Classification as Group E, is amended as follows:

- (i) On line two delete the word "five" and replace it with the word "four".
- (ii) On line three delete the words "2 1/2 years or less of age" and replace with the words "under the age of two".
- (l) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Institutional Group Care I, Group I-4, Day care facilities, Five or fewer occupants receiving care in a dwelling unit, is amended as follows: On lines one and two the word "five" is deleted and replaced with the word "four".
- (m) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Residential Group R-3, the words "and single family dwellings complying with the IRC" are added after the word "Residential occupancies".
- (n) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Residential Group R-3, Care facilities within a dwelling, is amended as follows: On line three after the word "dwelling" insert "other than child care".
- (o) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification, Residential Group R-3, a new section is added as follows: "Child Care. Areas used for child care purposes may be located in a residential dwelling unit when all of the following conditions are met:
  - 1. Compliance with Utah Administrative Code, R710-8, Day Care Rules, as enacted under the authority of the Utah Fire Prevention Board;
  - 2. Use is approved by the Utah Department of Health under the authority of the Utah Code, Title 26, Chapter 39, Utah Child Care Licensing Act, and in any of the following categories:
    - 1.1. Utah Administrative Code, R430-50, Residential Certificate Child Care; or
    - 1.2. Utah Administrative Code, R430-90, Licensed Family Child Care; and
  - 3. Compliance with all zoning regulations of the local regulator."
- (p) IFC, Chapter 2, Section 202, General Definitions, RECORD DRAWINGS, the definition for "RECORD DRAWINGS" is modified by deleting the words "a fire alarm system" and replacing them with "any fire protection system".

Amended by Chapter 199, 2013 General Session, (Coordination Clause)

Amended by Chapter 199, 2013 General Session

Amended by Chapter 357, 2013 General Session

**15A-5-202.5. Amendments and additions to Chapters 3 and 4 of IFC.**

- (1) For IFC, Chapter 3, General Requirements:
  - (a) IFC, Chapter 3, Section 304.1.2, Vegetation, is amended as follows: Delete line six and replace it with: "the Utah Administrative Code, R652-122-200, Minimum Standards for Wildland Fire Ordinance".

- (b) IFC, Chapter 3, Section 308.1.2, Throwing or Placing Sources of Ignition, is deleted and rewritten as follows: "No person shall throw or place, or cause to be thrown or placed, a lighted match, cigar, cigarette, matches, lighters, or other flaming or glowing substance or object on any surface or article where it can cause an unwanted fire."
- (c) IFC, Chapter 3, Section 310.8, Hazardous and Environmental Conditions, is deleted and rewritten as follows: "When the fire code official determines that hazardous environmental conditions necessitate controlled use of any ignition source, including fireworks, lighters, matches, sky lanterns, and smoking materials, any of the following may occur:
  - 1. If the hazardous environmental conditions exist in a municipality, the legislative body of the municipality may prohibit the ignition or use of an ignition source in mountainous, brush-covered, or forest-covered areas or the wildland urban interface area, which means the line, area, or zone where structures or other human development meet or intermingle with undeveloped wildland or land being used for an agricultural purpose.
  - 2. Except as provided in paragraph 3, if the hazardous environmental conditions exist in an unincorporated area, the state forester may prohibit the ignition or use of an ignition source in all or part of the areas described in paragraph 1 that are within the unincorporated area, after consulting with the county fire code official who has jurisdiction over that area.
  - 3. If the hazardous environmental conditions exist in a township created under Section 17-27a-306 that is in a county of the first class, the county legislative body may prohibit the ignition or use of an ignition source in all or part of the areas described in paragraph 1 that are within the township."
- (d) IFC, Chapter 3, Section 311.1.1, Abandoned Premises, is amended as follows: On line 10 delete the words "International Property Maintenance Code and the".
- (e) IFC, Chapter 3, Section 311.5, Placards, is amended as follows: On line three delete the word "shall" and replace it with the word "may".
- (f) IFC, Chapter 3, Section 315.2.1, Ceiling Clearance, is amended to add the following: "Exception: Where storage is not directly below the sprinkler heads, storage is allowed to be placed to the ceiling on wall-mounted shelves that are protected by fire sprinkler heads in occupancies meeting classification as light or ordinary hazard."
- (2) IFC, Chapter 4, Emergency Planning and Preparedness:
  - (a) IFC, Chapter 4, Section 404.2, Where required, Subsection 8, is amended as follows: After the word "buildings" add "to include sororities and fraternity houses".
  - (b) IFC, Chapter 4, Section 405.2, Table 405.2, is amended to add the following footnotes:
    - (i) "e. Secondary schools in Group E occupancies shall have an emergency evacuation drill for fire conducted at least every two

months, to a total of four emergency evacuation drills during the nine-month school year. The first emergency evacuation drill for fire shall be conducted within 10 school days after the beginning of classes, and the third emergency evacuation drill for fire shall be conducted 10 school days after the beginning of the next calendar year. The second and fourth emergency evacuation drills may be substituted by a security or safety drill to include shelter in place, earthquake drill, or lock down for violence."

- (ii) "f. In Group E occupancies, excluding secondary schools, if the AHJ approves, the monthly required emergency evacuation drill can be substituted by a security or safety drill to include shelter in place, earthquake drill, or lock down for violence. The routine emergency evacuation drill for fire must be conducted at least every other evacuation drill."
- (iii) "g. A-3 occupancies in academic buildings of institutions of higher learning are required to have one emergency evacuation drill per year, provided the following conditions are met:
  - (A) The building has a fire alarm system in accordance with Section 907.2.
  - (B) The rooms classified as assembly shall have fire safety floor plans as required in Section 404.3.2(4) posted.
  - (C) The building is not classified a high-rise building.
  - (D) The building does not contain hazardous materials over the allowable quantities by code."

Amended by Chapter 243, 2014 General Session

**15A-5-203. Amendments and additions to IFC related to fire safety, building, and site requirements.**

- (1) For IFC, Chapter 5, Fire Service Features:
  - (a) In IFC, Chapter 5, a new Section 501.5, Access grade and fire flow, is added as follows: "An authority having jurisdiction over a structure built in accordance with the requirements of the International Residential Code as adopted in the State Construction Code, may require an automatic fire sprinkler system for the structure only by ordinance and only if any of the following conditions exist:
    - (i) the structure:
      - (A) is located in an urban-wildland interface area as provided in the Utah Wildland Urban Interface Code adopted as a construction code under the State Construction Code; and
      - (B) does not meet the requirements described in Utah Code, Subsection 65A-8-203(3)(a) and Utah Administrative Code, R652-122-200, Minimum Standards for Wildland Fire Ordinance;
    - (ii) the structure is in an area where a public water distribution system with fire hydrants does not exist as required in Utah Administrative Code, R309-550-5, Water Main Design;

- (iii) the only fire apparatus access road has a grade greater than 10% for more than 500 continual feet; or
- (iv) (A) the water supply to the structure does not provide at least 500 gallons fire flow per minute for a minimum of 30 minutes, if the total square foot living space of the structure is equal to or less than 5,000 square feet;
- (B) the water supply to the structure does not provide at least 750 gallons per minute fire flow for a minimum of 30 minutes, if the total square foot living space exceeds 5,000 square feet, but is equal to or less than 10,000 square feet; or
- (C) the water supply to the structure does not provide at least 1,000 gallons per minute fire flow for a minimum of 30 minutes, if the total square foot living space exceeds 10,000 square feet."
- (b) In IFC, Chapter 5, Section 506.1, Where Required, is deleted and rewritten as follows: "Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official, after consultation with the building owner, may require a key box to be installed in an approved location. The key box shall contain keys to gain necessary access as required by the fire code official."
- (c) In IFC, Chapter 5, a new Section 507.1.1, Isolated one- and two-family dwellings, is added as follows: "Fire flow may be reduced for an isolated one- and two-family dwelling when the authority having jurisdiction over the dwelling determines that the development of a full fire-flow requirement is impractical."
- (d) In IFC, Chapter 5, a new Section 507.1.2, Pre-existing subdivision lots, is added as follows "Total water supply requirements shall not exceed the fire flows described in Section 501.5(iv) for the largest one- or two-family dwelling, protected by an automatic fire sprinkler system, on a subdivision lot platted before December 31, 1980, unless the municipality or county in which the lot is located provides the required fire flow capacity."
- (e) In IFC, Chapter 5, Section 510.1, Emergency Responder Radio Coverage in New Buildings, is amended by adding: "When required by the fire code official," at the beginning of the first paragraph.
- (2) For IFC, Chapter 6, Building Services and Systems:
  - (a) In IFC, Chapter 6, Section 605.11.3.3.1, Access, is deleted and rewritten as follows: "There shall be a minimum three foot wide (914 mm) clear perimeter around the edges of the roof."
  - (b) In IFC, Chapter 6, Section 605.11.3.3.2, Pathways, is deleted and rewritten as follows: "The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:
    - 1. The pathway shall be over areas capable of supporting the live load of fire fighters accessing the roof.

2. The centerline axis pathways shall be provided in both axes of the roof. Centerline axis pathways shall run where the roof structure is capable of supporting the live load of fire fighters accessing the roof.
  3. Smoke and heat vents required by Section 910.2.1 or 910.2.2 of this Code, shall be provided with a clear pathway width of not less than three feet (914 mm) to vents.
  4. Access to roof area required by Section 504.2 or 1009.16 of this Code, shall be provided with a clear pathway width of not less than three feet (914 mm) around access opening and at least three feet (914 mm) clear pathway to parapet or roof edge."
- (c) In IFC, Chapter 6, Section 605.11.3.2, Residential Systems for One and Two Family Dwellings, is deleted and rewritten as follows: "Access to residential systems for one and two family dwellings shall be provided in accordance with Sections 605.11.3.2.1 through 605.11.3.2.4. Exception: Reduction in pathways and clear access width shall be permitted where shown that a rational approach has been used and that such reductions are warranted when approved by the Fire Code Official."
- (d) In IFC, Chapter 6, Section 605.11.3.3.3, Smoke Ventilation, is deleted and rewritten as follows: "The solar installation shall be designed to meet the following requirements:
1. Arrays shall be no greater than 150 feet (45.720 mm) by 150 feet (45.720 mm) in distance in either axis in order to create opportunities for fire department smoke ventilation operations.
  2. Smoke ventilation options between array sections shall be one of the following:
    - 2.1. A pathway six feet (1829 mm) or greater in width.
    - 2.2. A three foot (914 mm) or greater in width pathway and bordering roof skylights or smoke and heat vents when required by Section 910.2.1 or Section 910.2.2 of this Code.
    - 2.3. Smoke and heat vents designed for remote operation using devices that can be connected to the vent by mechanical, electrical, or any other suitable means, shall be protected as necessary to remain operable for the design period. Controls for remote operation shall be located in a control panel, clearly identified and located in an approved location."
- (e) In IFC, Chapter 6, Section 607.4, Elevator Key Location, is deleted and rewritten as follows: "Firefighter service keys shall be kept in a "Supra-Stor-a-key" elevator key box or similar box with corresponding key system that is adjacent to the elevator for immediate use by the fire department. The key box shall contain one key for each elevator, one key for lobby control, and any other keys necessary for emergency service. The elevator key box shall be accessed using a 6049 numbered key. "
- (f) In IFC, Chapter 6, Section 609.1, General, is amended as follows: On line three, after the word "Code", add the words "and NFPA 96".

- (3) For IFC, Chapter 7, Fire-Resistance-Rated Construction, IFC, Chapter 7, Section 703.2, is amended to add the following: "Exception: In Group E Occupancies, where the corridor serves an occupant load greater than 30 and the building does not have an automatic fire sprinkler system installed, the door closers may be of the friction hold-open type on classrooms' doors with a rating of 20 minutes or less only."

Amended by Chapter 199, 2013 General Session

**15A-5-204. Amendments and additions to IFC related to fire protection systems.**

For IFC, Fire Protection Systems:

- (1) IFC, Chapter 9, Section 901.2, Construction Documents, is amended to add the following at the end of the section: "The code official has the authority to request record drawings ("as built") to verify any modifications to the previously approved construction documents."
- (2) IFC, Chapter 9, Section 901.4.6, Pump and Riser Room Size, is deleted and replaced with the following: "Pump and Riser Room Size. Fire pump and automatic sprinkler system riser rooms shall be designed with adequate space for all installed equipment necessary for the installation and to provide sufficient working space around the stationary equipment. Clearances around equipment shall be in accordance with manufacturer requirements and not less than the following minimum elements:
  - 901.4.6.1 A minimum clear and unobstructed distance of 12 inches shall be provided from the installed equipment to the elements of permanent construction.
  - 901.4.6.2 A minimum clear and unobstructed distance of 12 inches shall be provided between all other installed equipment and appliances.
  - 901.4.6.3 A clear and unobstructed width of 36 inches shall be provided in front of all installed equipment and appliances, to allow for inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly.
  - 901.4.6.4 Automatic sprinkler system riser rooms shall be provided with a clear and unobstructed passageway to the riser room of not less than 36 inches, and openings into the room shall be clear and unobstructed, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 34 inches and a clear height of the door opening shall not be less than 80 inches.
  - 901.4.6.5 Fire pump rooms shall be provided with a clear and unobstructed passageway to the fire pump room of not less than 72 inches, and openings into the room shall be clear, unobstructed and large enough to allow for the removal of the largest piece of equipment, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 68

inches and a clear height of the door opening shall not be less than 80 inches."

- (3) IFC, Chapter 9, Section 903.2.1.2, Group A-2, is amended to add the following subsection: "4. An automatic fire sprinkler system shall be provided throughout Group A-2 occupancies where indoor pyrotechnics are used."
- (4) IFC, Chapter 9, Section 903.2.2, Ambulatory Health Care Facilities, is amended as follows: On line two delete the words "all fire areas floor" and replace with the word "buildings" and delete the last paragraph.
- (5) IFC, Chapter 9, Section 903.2.4, Group F-1, Subsection 2, is deleted and rewritten as follows: "A Group F-1 fire area is located more than three stories above the lowest level of fire department vehicle access."
- (6) IFC, Chapter 9, Section 903.2.7, Group M, Subsection 2, is deleted and rewritten as follows: "A Group M fire area is located more than three stories above the lowest level of fire department vehicle access."
- (7) IFC, Chapter 9, Section 903.2.8 Group R, is amended to add the following:

"Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) constructed in accordance with the International Residential Code for one- and two-family dwellings."
- (8) IFC, Chapter 9, Section 903.2.8, Group R, is amended to add a second exception as follows: "Exception: Group R-4 fire areas not more than 4,500 gross square feet and not containing more than 16 residents, provided the building is equipped throughout with an approved fire alarm system that is interconnected and receives its primary power from the building wiring and a commercial power system."
- (9) IFC, Chapter 9, Section 903.2.8 Group R, is amended to add a third exception as follows: "Exception: Single story group R-1 occupancies with fire areas not more than 2,000 square feet that contain no installed plumbing or heating, where no cooking occurs, and constructed of Type I-A, I-B, II-A, or II-B construction."
- (10) IFC, Chapter 9, Section 903.2.9, Group S-1, Subsection 2, is deleted and rewritten as follows: "A Group S-1 fire area is located more than three stories above the lowest level of fire department vehicle access."
- (11) IFC, Chapter 9, Section 903.3.1.1 is amended by adding the following subsection: "903.3.1.1.2 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler system installed in accordance with NFPA 13 may not exceed a maximum concentration of 38% premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may not exceed 150 gallons."
- (12) IFC, Chapter 9, Section 903.3.1.2 is amended by adding the following subsection: "903.3.1.2.2 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler system installed in accordance with NFPA 13R may not exceed a maximum concentration of 38% premixed propylene glycol"

- or 48% premixed glycerin, and the capacity of the system may not exceed 150 gallons."
- (13) IFC, Chapter 9, Section 903.3.1.3 is amended by adding the following subsection: "903.3.1.3.1 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler system installed in accordance with NFPA 13D may not exceed a maximum concentration of 38% premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may not exceed 150 gallons."
- (14) IFC, Chapter 9, Section 903.3.5, Water supplies, is amended as follows: On line six, after the word "Code", add "and as amended in Utah's State Construction Code".
- (15) IFC, Chapter 9, Section 903.5 is amended to add the following subsection: "903.5.1 Tag and Information. A tag shall be attached to the riser indicating the date the antifreeze solution was tested. The tag shall also indicate the type and concentration of antifreeze solution by volume with which the system is filled, the name of the contractor that tested the antifreeze solution, the contractor's license number, and a warning to test the concentration of the antifreeze solutions at yearly intervals."
- (16) IFC, Chapter 9, Section 904.11, Commercial cooking systems, is deleted and rewritten as follows: "The automatic fire extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems. Pre-engineered automatic extinguishing systems shall be tested in accordance with UL300 and listed and labeled for the intended application. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions. The exception in Section 904.11 is not deleted and shall remain as currently written in the IFC."
- (17) IFC, Chapter 9, Section 904.11.3, Carbon dioxide systems, and Section 904.11.3.1, Ventilation system, are deleted and rewritten as follows:
- (a) "Existing automatic fire extinguishing systems used for commercial cooking that use dry chemical are prohibited and shall be removed from service."
- (b) "Existing wet chemical fire extinguishing systems used for commercial cooking that are not UL300 listed and labeled are prohibited and shall be either removed or upgraded to a UL300 listed and labeled system."
- (18) IFC, Chapter 9, Section 904.11.4, Special provisions for automatic sprinkler systems, is amended to add the following subsection: "904.11.4.2 Existing automatic fire sprinkler systems protecting commercial cooking equipment, hood, and exhaust systems that generate appreciable depth of cooking oils shall be replaced with a UL300 system that is listed and labeled for the intended application."
- (19) IFC, Chapter 9, Section 904.11.6.2, Extinguishing system service, is amended to add the following: "Exception: Automatic fire extinguishing systems located in occupancies where usage is limited and less than six consecutive months may be serviced annually if the annual service is

- conducted immediately before the period of usage, and approval is received from the AHJ."
- (20) IFC, Chapter 9, Section 905.3.9 is a new subsection as follows: "Open Parking Garages. Open parking garages shall be equipped with an approved Class I manual standpipe system when fire department access is not provided for firefighting operations to within 150 feet of all portions of the open parking garage as measured from the approved fire department vehicle access. Class I manual standpipe shall be accessible throughout the parking garage such that all portions of the parking structure are protected within 150 feet of a hose connection.  
Exception: Open parking garages equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1."
- (21) IFC, Chapter 9, Section 905.8, Dry Standpipes, Exception is deleted and rewritten as follows: "Where subject to freezing conditions and approved by the fire code official."
- (22) IFC, Chapter 9, Section 905.11, Existing buildings, and IFC, Chapter 11, Section 1103.6, Standpipes, are deleted.
- (23) In IFC, Chapter 9, Section 906.1, Where Required, the exception under paragraph 1 is deleted and rewritten to read: "Exception: In new and existing Group A, B, and E occupancies equipped with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in items 2 through 6."
- (24) IFC, Chapter 9, Section 907.2.3 Group E:
- (a) The first sentence is deleted and rewritten as follows: "A manual fire alarm system that initiates the occupant notification system in accordance with Section 907.5 and installed in accordance with Section 907.6 shall be installed in Group E occupancies."
- (b) Exception number 3, on line five, delete the words, "emergency voice/alarm communication system" and replace with "occupant notification system."
- (25) IFC, Chapter 9, 907.8, Inspection, testing, and maintenance, is amended to add the following sentences at the end of the section: "Increases in nuisance alarms shall require the fire alarm system to be tested for sensitivity. Fire alarm systems that continue after sensitivity testing with unwarranted nuisance alarms shall be replaced as directed by the AHJ."
- (26) IFC, Chapter 9, Section 908.7, Carbon Monoxide Alarms, is deleted and rewritten as follows:  
"908.7 Carbon Monoxide Detection.  
908.7.1 Groups R-1, R-2, R-3, R-4, I-1, and I-4. Carbon monoxide detection shall be installed on each habitable level of a dwelling unit or a sleeping unit in Groups R-1, R-2, R-3, R-4, I-1, and I-4 occupancies that are equipped with a fuel-burning appliance.  
908.7.1.1 If more than one carbon monoxide detector is required, the carbon monoxide detectors shall be interconnected as required in IFC, Chapter 9, Section 907.2.11.3."

- 908.7.1.2 In new construction, a carbon monoxide detector shall receive its primary power as required under IFC, Chapter 9, Section 907.2.11.4.
- 908.7.1.3 Upon completion of the installation, a carbon monoxide detector system shall meet the requirements listed in NFPA 720, Installation of Carbon Monoxide Detection and Warning Equipment and UL 2034, Standard for Single and Multiple Carbon Monoxide Alarms.
- 908.7.2 Group E. A carbon monoxide detection system shall be installed in new buildings that contain Group E occupancies in accordance with IFC, Chapter 9, Sections 908.7.2.1 through 908.7.2.6. A carbon monoxide detection system shall be installed in existing buildings that contain Group E occupancies in accordance with IFC, Chapter 11, Section 1103.9.
- 908.7.2.1 Where required. In Group E occupancies, a carbon monoxide detection system shall be provided where a fuel-burning appliance, a fuel-burning fireplace, or a fuel-burning forced air furnace is present.
- 908.7.2.2 Detection equipment. Each carbon monoxide detection system shall be installed in accordance with NFPA 720 and the manufacturer's instructions, and be listed as complying with UL 2034 and UL 2075.
- 908.7.2.3 Locations. Each carbon monoxide detection system shall be installed in the locations specified in NFPA 720.
- 908.7.2.4 Combination detectors. A combination carbon monoxide/smoke detector is an acceptable alternative to a carbon monoxide detection system if the combination carbon monoxide/smoke detector is listed in accordance with UL 2075 and UL 268.
- 908.7.2.5 Power source. Each carbon monoxide detection system shall receive primary power from the building wiring if the wiring is served from a commercial source. If primary power is interrupted, each carbon monoxide detection system shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for over-current protection.
- 908.7.2.6 Maintenance. Each carbon monoxide detection system shall be maintained in accordance with NFPA 720. A carbon monoxide detection system that becomes inoperable or begins to produce end-of-life signals shall be replaced."

(27) IFC Section 908.7.1 is renumbered to 908.7.3.

Amended by Chapter 74, 2014 General Session Amended by Chapter 243, 2014 General Session

**15A-5-205. Amendments and additions to IFC related to means of egress and special processes and uses.**

- (1) IFC, Chapter 10, Section 1008.1.9.6, Special locking arrangements in Group I-2, is amended as follows:
- (a) The section title "Special locking arrangements in Group I-2." is rewritten to read "Special locking arrangements in Groups I-1 and I-2."

- (b) On line three, delete the word "Group", and add the words "Group I-1 and".
- (c) After existing Item 7 add Item 8 as follows: "8. The secure area or unit with special egress locks shall be located at the level of exit discharge in Type V construction."
- (2) In IFC, Chapter 10, Section 1008.1.9.7, Delayed egress locks, Item 7 is added after the existing Item 6 as follows: "7. The secure area or unit with delayed egress locks shall be located at the level of exit discharge in Type V construction."
- (3) In IFC, Chapter 10, Section [B] 1009.7.2, Stair Treads and Risers, Exception 5 is deleted and replaced with the following: "5. In Group R-3 occupancies, within dwelling units in Group R-2 occupancies, and in Group U occupancies that are accessory to a Group R-3 occupancy, or accessory to individual dwelling units in Group R-2 occupancies, the maximum riser height shall be 8 inches (203 mm) and the minimum tread depth shall be 9 inches (229 mm). The minimum winder tread depth at the walk line shall be 10 inches (254 mm), and the minimum winder tread depth shall be 6 inches (152 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 10 inches (254 mm)."
- (4) IFC, Chapter 10, Section 1009.12 [B] 1009.15, Handrails, is amended to add the following exception: "6. In occupancies in Group R-3, as applicable in Section 1012 and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 1012, handrails shall be provided on at least one side of stairways consisting of four or more risers."
- (5) IFC, Chapter 10, Section 1024, Luminous Egress Path Markings, is deleted.
- (6) IFC, Chapter 10, Section 1030.2.1, Security Devices and Egress Locks, is amended to add the following: On line three, after the word "fire", add the words "and building".

Amended by Chapter 199, 2013 General Session

**15A-5-205.5. Amendments to Chapter 11 of IFC.**

- (1) In IFC, Chapter 11, Section 1103.2 Emergency Responder Radio Coverage in Existing Buildings, is amended as follows: On line two after the title, the following is added: "When required by the fire code official".
- (2) IFC, Chapter 11, Section 1103.5, Sprinkler Systems, is amended to add the following new subsection: "1103.5.3 Group A-2. An automatic fire sprinkler system shall be provided throughout existing Group A-2 occupancies where indoor pyrotechnics are used."
- (3) IFC, Chapter 11, Section 1103.6, Standpipes, is deleted.
- (4) In IFC, Chapter 11, 1103.7, Fire Alarm Systems, is deleted and rewritten as follows: "1103.7, Fire Alarm Systems. The following shall have an approved fire alarm system installed in accordance with Utah Administrative Code Section R710-4:
  - 1. a building with an occupant load of 300 or more persons that is owned or operated by the state;
  - 2. a building with an occupant load of 300 or more persons that is owned or operated by an institution of higher education; and
  - 3. a building with an occupant load of 50 or more persons that is owned or

operated by a school district, private school, or charter school.  
Exception: the requirements of this section do not apply to a building designated as an Institutional Group I (as defined in IFC 202)

occupancy."

- (5) IFC, Chapter 11, 1103.7.1 Group E, 1103.7.2 Group I-1, 1103.7.3 Group I-2, 1103.7.4 Group I-3, 1103.7.5 Group R-1, 1103.7.5.1 Group R-1 Hotel and Motel Manual Fire Alarm System, 1103.7.5.1.1 Group R-1 Hotel and Motel Automatic Smoke Detection System, 1103.7.5.2 Group R-1 Boarding and Rooming Houses Manual Fire Alarm System, 1103.7.5.2.1 Group R-1 Boarding and Rooming Houses Automatic Smoke Detection System, 1103.7.6 Group R-2 and 1103.7.7 Group R-4, are deleted.
- (6) IFC, Chapter 11, Section 1103.9, Carbon Monoxide Alarms, is deleted and rewritten as follows:  
"1103.9 Carbon Monoxide Detection.  
1103.9.1 Groups R-2, R-3, R-4, I-1, and I-4. Carbon monoxide detection shall be installed on each habitable level of a dwelling unit or a sleeping unit in existing Groups R-2, R-3, R-4, I-1, and I-4 occupancies that are equipped with a fuel-burning appliance.  
1103.9.1.1 If more than one carbon monoxide detector is required, they shall be interconnected as required in IFC, Chapter 9, Section 907.2.11.3.  
1103.9.1.2 In new construction, a carbon monoxide detector shall receive its primary power as required under IFC, Chapter 9, Section 907.2.11.4.  
1103.9.1.3 Upon completion of the installation, the carbon monoxide detector system shall meet the requirements listed in NFPA 720, Installation of Carbon Monoxide Detection and Warning Equipment and UL 2034, Standard for Single and Multiple Carbon Monoxide Alarms.  
1103.9.2 Group E. Carbon monoxide detection shall be installed in existing buildings that contain Group E occupancies in accordance with IFC, Chapter 9, Sections 908.7.2.1 through 908.7.2.6."

Amended by Chapter 74, 2014 General Session

**15A-5-206. Amendments and additions to IFC related to hazardous materials, explosives, fireworks, and flammable and combustible liquids.**

- (1) For IFC, Explosives and Fireworks, IFC, Chapter 56, Section 5601.3, Fireworks, Exception 4 is amended to add the following sentence at the end of the exception: "The use of fireworks for display and retail sales is allowed as set forth in Utah Code, Title 53, Chapter 7, Utah Fire Prevention and Safety Act, Sections 53-7-220 through 53-7-225; Utah Code, Title 11, Chapter 3, County and Municipal Fireworks Act; Utah Administrative Code, R710-2; and the State Fire Code."
- (2) For IFC, Chapter 57, Flammable and Combustible Liquids:
  - (a) IFC, Chapter 57, Section 5701.4, Permits, is amended to add the following at the end of the section: "The owner of an underground tank that is out of service for longer than one year shall receive a Temporary Closure Notice from the Department of Environmental Quality, and a copy shall be given to the AHJ."

- (b) IFC, Chapter 57, Section 5706.1, General, is amended to add the following special operation: "8. Sites approved by the AHJ".
- (c) IFC, Chapter 57, Section 5706.2, Storage and dispensing of flammable and combustible liquids on farms and construction sites, is amended to add the following: On line five, after the words "borrow pits", add the words "and sites approved by the AHJ".
- (3) For IFC, Chapter 61, Liquefied Petroleum Gas:
  - (a) IFC, Chapter 61, Section 6101.2, Permits, is amended as follows: On line two, after the word "105.7", add "and the adopted LP Gas rules".
  - (b) IFC, Chapter 61, Section 6103.1, General, is deleted and rewritten as follows: "General. LP Gas equipment shall be installed in accordance with NFPA 54, NFPA 58, the adopted LP Gas rules, and the International Fuel Gas Code, except as otherwise provided in this chapter."
  - (c) Chapter 61, Section 6109.12, Location of storage outside of buildings, is amended as follows: In Table 6109.12, Doorway or opening to a building with two or more means of egress, with regard to quantities 720 or less and 721 -- 2,500, the currently stated "5" is deleted and replaced with "10".
  - (d) IFC, Chapter 61, Section 6109.15.1, Automated Cylinder Exchange Stations, is amended as follows: Item # 4 is deleted.
  - (e) IFC, Chapter 61, Section 6110.1, Temporarily out of service, is amended as follows: On line two, after the word "discontinued", add the words "for more than one year or longer as allowed by the AHJ,".

Amended by Chapter 199, 2013 General Session

**15A-5-207. Amendments and additions to IFC related to existing buildings and referenced standards.**

IFC, Chapter 80, Referenced Standards, is amended as follows:

- (1) Under the heading NFPA - National Fire Protection Association, delete the existing "Standard reference number" with regard to the edition and replace it with the following:
  - (a) "NFPA, Standard 10, Portable Fire Extinguishers, 2010 edition";
  - (b) "NFPA, Standard 11, Low-, Medium- and High-expansion Foam, 2010 edition";
  - (c) "NFPA, Standard 12, Carbon Dioxide Extinguishing Systems, 2008 edition";
  - (d) "NFPA, Standard 12A, Halon 1301 Fire Extinguishing System, 2009 edition";
  - (e) "NFPA, Standard 13, Installation of Sprinkler Systems, 2010 edition";
  - (f) "NFPA, Standard 13D, Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes, 2010 edition";
  - (g) "NFPA, Standard 13R, Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, 2010 edition";
  - (h) "NFPA, Standard 14, Installation of Standpipe and Hose Systems, 2010 edition";

- (i) "NFPA, Standard 17, Dry Chemical Extinguishing Systems, 2009 edition";
  - (j) "NFPA, Standard 17A, Wet Chemical Extinguishing Systems, 2009 edition";
  - (k) "NFPA, Standard 20, Installation of Stationary Pumps for Fire Protection, 2010 edition";
  - (l) "NFPA, Standard 22, Water Tanks for Private Fire Protection, 2008 edition";
  - (m) "NFPA, Standard 24, Installation of Private Fire Service Mains and Their Appurtenances, 2010 edition";
  - (n) "NFPA, Standard 72, National Fire Alarm Code, 2010 edition," all "Referenced in code section numbers" remain the same, except the exclusion of Table 508.1.5;
  - (o) "NFPA, Standard 92B, Smoke Management Systems in Malls, Atria and Large Spaces, 2009 edition";
  - (p) "NFPA, Standard 101, Life Safety Code, 2009 edition";
  - (q) "NFPA, Standard 110, Emergency and Standby Power Systems, 2010 edition";
  - (r) "NFPA 720, Installation of Carbon Monoxide (CO) Detection and Warning Equipment, 2009 edition";
  - (s) "NFPA, Standard 750, Water Mist Fire Protection Systems, 2010 edition"; and
  - (t) "NFPA, Standard 1123, Fireworks Display, 2010 edition."
- (2) Under the heading UL -- Underwriters Laboratories, Inc., add the following:  
"UL2034, Standard for Single and Multiple Station Carbon Monoxide Alarms, 1998."

Amended by Chapter 199, 2013 General Session

**15A-5-208. Blasting permits.**

- (1) An operational permit is required for the use of any quantity of explosives or explosive materials for the purpose of blasting.
- (2) The State Fire Marshal Division shall issue blasting permits:
  - (a) for those locations where the local fire department that has jurisdiction of the location of the blast does not have a procedure in place for issuing blasting permits; and
  - (b) for multiple blasting activities that are part of one project and that involve conducting blasts in the jurisdictions of more than one fire department.
- (3) The State Fire Marshal Division shall adopt rules pursuant to Title 63G, Chapter 3, Utah Administrative Rulemaking Act, as necessary to implement the procedure of issuing blasting permits under this section.

Enacted by Chapter 84, 2012 General Session

**15A-5-301. General provisions.**

The amendments and additions in this part to the NFPA are adopted for application statewide.

Enacted by Chapter 14, 2011 General Session

**15A-5-302. Amendments and additions to NFPA related to National Fire Alarm Code.**

For NFPA 72, National Fire Alarm Code:

- (1) NFPA 72, Chapter 2, Section 2.2, NFPA Publications, is amended to add the following NFPA standard: "NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection, 2010 edition."
- (2) NFPA 72, Chapter 10, Section 10.4.1, System Designer, Subsection 10.4.1.2(2), is deleted and rewritten as follows: "National Institute of Certification in Engineering Technologies (NICET) fire alarm level II certified personnel."
- (3) NFPA 72, Chapter 10, Section 10.4.2, System Installer, Subsection 10.4.2.2(2), is deleted and rewritten as follows: "National Institute of Certification in Engineering Technologies (NICET) fire alarm level II certified personnel."
- (4) NFPA 72, Chapter 10, Section 10.10, Fire Alarm Signal Deactivation, Subsection 10.10.2, is amended to add the following sentence: "When approved by the AHJ, the audible notification appliances may be deactivated during the investigation mode to prevent unauthorized reentry into the building."
- (5) NFPA 72, Chapter 10, Section 10.15, Protection of Fire Alarm System, is deleted and rewritten as follows: "Automatic smoke detection shall be provided at the location of each fire alarm control unit(s), notification appliance circuit power extenders, and supervising station transmitting equipment to provide notification of fire at the location."
- (6) In NFPA 72, Chapter 10, Section 10.15, a new Exception 1 is added as follows: "When ambient conditions prohibit installation of automatic smoke detection, automatic heat detection shall be permitted."
- (7) In NFPA 72, Chapter 23, Section 23.8.5.9, Signal Initiation -- Fire Pump, Subsection 23.8.5.9.3 is added as follows: "Automatic fire pumps shall be supervised in accordance with NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection, and the AHJ."
- (8) NFPA 72, Chapter 26, Section 26.3.4, Indication of Central Station Service, Subsection 26.3.4.7 is amended as follows: On line two, after the word "notified", insert the words "without delay".
- (9) NFPA 72, Chapter 10, Section 10.4.3 Inspection, Testing, and Maintenance Personnel, Subsection 10.4.3.1, is deleted and rewritten as follows: "Service personnel shall be qualified and experienced in the inspection, testing, and maintenance of fire alarm systems. Qualified personnel shall meet the certification requirements stated in Utah Administrative Code, R710-11-3, Fire Alarm System Inspecting and Testing."

Amended by Chapter 199, 2013 General Session

**15A-5-303. Amendments and additions to NFPA related to manufacture,**

**transportation, storage, and retail sales of fireworks.**

- (1) For purposes of this section and subject to Subsection (2), the Utah Fire Prevention Board shall adopt standards by rule for the retail sales of consumer fireworks, and in doing so, shall consider the applicable provisions of NFPA 1124, Chapter 7, Retail Sales of Consumer Fireworks.
- (2) NFPA 1124 Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles:
  - (a) In NFPA 1124, Chapter 7, Section 7.2, Special Limits for Retail Sales of Consumer Fireworks, Subsection 7.2.8 is added as follows: "Display of Class C common state approved explosives inside of buildings protected throughout with an automatic fire sprinkler system shall not exceed 25% of the area of the retail sales floor or exceed 600 square feet, whichever is less."
  - (b) In NFPA 1124, Chapter 7, Section 7.2, Special Limits for Retail Sales of Consumer Fireworks, Subsection 7.2.9 is added as follows: "Rack storage of Class C common state approved explosives inside of buildings is prohibited."
  - (c) NFPA 1124, Chapter 7, Section 7.3.1, Exempt Amounts, Subsection 7.3.1.1, is deleted and rewritten as follows: "Display of Class C common state approved explosives inside of buildings not protected with an automatic fire sprinkler system shall not exceed 125 pounds of pyrotechnic composition."
  - (d) NFPA 1124, Chapter 7, Section 7.3.15.2, Height of Sales Displays, Subsection 7.3.15.2.2, is amended as follows: On line three delete "12 ft. (3.66m)" and replace it with "6 ft."

Enacted by Chapter 14, 2011 General Session

**15A-5-401. Grandfathering of local ordinances related to automatic sprinkler systems.**

An ordinance adopted by a legislative body of a political subdivision that is in effect on June 30, 2010, and that imposes a requirement related to an automatic sprinkler system for a structure built in accordance with the requirements of the International Residential Code as adopted in the State Construction Code may remain in effect on or after July 1, 2010, notwithstanding that the ordinance is not authorized under Subsection 15A-5-203(1).

Amended by Chapter 199, 2013 General Session

## **Comments from David Brems, Principal, GSBS Architects and member of the Clean Air Action Team, to the UBCC Architectural Advisory Committee Encouraging the Adoption of the 2015 IECC in Utah**

**May 5, 2015**

My name is David Brems, I am the Founding Principal of GSBS Architects, and a participant in the Governor's Clean Air Action Team. First I'd like to thank you for volunteering your time and expertise to review and assess the impacts of new building codes on Utah families, businesses, economy, and air quality. And thank you for allowing me to participate in today's meeting.

I'd like to talk to you today about why it is so important to update the residential and commercial construction codes to the 2015 International Energy Conservation Code, and how updating the code will benefit Utah's economy, families, businesses and our air quality.

- 1. I have a copy of a letter for each of you signed by 16 members of the Governor's Clean Air Action Team encouraging you to consider the air quality benefits of adopting the 2015 IECC.** Before explaining why we think that updated energy codes are such an important air quality issue, we also wanted to make sure you know that updated energy codes were a unanimous recommendation of our group convened by Governor Herbert. The team, a diverse body including legislators, business representatives, experts and advocates, issued approximately 15 recommendations in October 2014 to the Utah Legislature and Governor Herbert, including: "Update the state building code to include the energy efficiency standards of the 2015 International Energy Conservation Code."<sup>1</sup>

My hope is that the Architectural Advisory Committee will consider these important points as you review the 2015 IECC, and ultimately recommend its adoption to the Uniform Building Code Commission.

- 2. I am going to spend most of my time talking about the many benefits the new code brings to Utah. But first, let's get to the elephant in the room - Does adopting the newer code increase construction costs?** Cost effectiveness analyses on the residential 2015 IECC and ASHRAE 90.1-2013 for commercial buildings are currently being developed by PNNL, so information is forthcoming.

But, we know from a prior Utah-specific residential analysis of the 2012 IECC that updated energy codes generate positive cash flow in 2 years since energy cost savings are higher than potential increased mortgage costs.<sup>2</sup> In fact, recent analysis by the Building Codes Assistance Project found that

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<sup>1</sup> Envision Utah, Clean Air Action Team 2014/15 Policy Recommendations Released, October 2014, <http://envisionutah.net/news-and-events/envision-utah-blog/item/329-clean-air-action-team-2014-15-policy-recommendations-released>

<sup>2</sup> United States Department of Energy, *Utah Energy and Cost Savings for New Single- and Multifamily Homes: 2009 and 2012 IECC as Compared to the 2006 IECC*, April 2012, <http://www.energycodes.gov/sites/default/files/documents/UtahResidentialCostEffectiveness.pdf>

adopting the 2015 IECC for new homes in Utah will keep \$1.07 billion in the pockets of Utah homeowners between 2017 and 2040.<sup>3</sup>

One thing that makes the residential 2015 IECC more cost effective than previous energy codes is the new Energy Rating Index performant path, which is a new, optional, performance path in the code. The Leading Builders of America supported the development of the ERI path and report that this new compliance path reduces the incremental cost to build a home to the 2015 IECC prescriptive requirements by \$1,700.<sup>4</sup>

More fundamentally however, a recent analysis of California's Title 24 energy standard<sup>5</sup>, found that contrary to industry claims, the energy efficient standards have no statistical impact on the construction cost of new homes. This study suggests that we should question claims that new homes built to the updated energy codes are too expensive for homebuyers.

3. **Next, we have to consider the timing of this review and your recommendation.** As you know, Utah's current energy code for new homes is already out-of-date and requires new homes to be built only somewhat better than the 2006 energy code. During the last legislative session, House Bill 285 would have changed Utah's building code adoption cycle for new single family homes from a three-year cycle to a six-year cycle. This legislation failed to pass last Session but will likely be proposed again in the upcoming 2016 Legislative Session, and if this bill were to be passed without the 2015 IECC first being adopted, an estimated 60,000 new homes would be built using the out-of-date standards until at least the year 2022.<sup>6</sup> The 2015 IECC should be adopted for new homes and commercial buildings prior to a six-year building code cycle taking effect. This is another reason why your recommendation to adopt the 2015 IECC this summer is critically important.
4. **Utah has much to gain by adopting the latest energy code to not take advantage of it. First and foremost, let's talk about air quality.** Air pollution is a top concern of Utah resident and businesses, and there is a direct connection between energy codes and improved air quality. Buildings are a growing contributor to Utah's air pollution, now contributing nearly 40% of the emissions that cause Utah's unhealthy air. This is data directly from the Utah Division of Air Quality.<sup>7</sup> Specifically, *inefficient* new buildings will increase energy consumption and needless NOx pollution, which is a precursor to PM 2.5. On the other hand, *energy efficient* new homes and commercial buildings provide a long-term tool to reduce air pollution by lowering energy consumption, thereby reducing the resulting pollution emissions over the 100+ year life of the structure.

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<sup>3</sup> Building Codes Assistance Project, *Utah Residential Energy Code Analysis: Impacts of Adopting the 2015 IECC in Utah* (2015) <http://energycodesocean.org/sites/default/files/Utah2015Analysis.pdf>

<sup>4</sup> RESNET, *Energy Rating Index Performance Path: Benefits of the Energy Rating Index Score Option*, April 2015, [http://www.resnet.us/uploads/documents/EnergyRatings\\_FactSheet\\_EnergyRating\\_Index.pdf](http://www.resnet.us/uploads/documents/EnergyRatings_FactSheet_EnergyRating_Index.pdf)

<sup>5</sup> Report – New Home Cost v. Price Study, April 2015, <http://www.slideshare.net/NehemiahStone1/construction-cost-v-home-price>

<sup>6</sup> Estimate assumes that 10,000 housing units will be permitted per year, based historical data from United States Census Building Permit Survey, April 2015, <http://www.census.gov/construction/bps/stateannual.html>

<sup>7</sup> Utah Division of Air Quality presentation to Utah Clean Air Action Team, July 2014

As I said before – there is a direct link between energy code and air quality. Which is why last October, the Clean Air Action Team recommended to the Utah Legislature and Governor Herbert that Utah adopt the 2015 energy conservation code for new homes and buildings.

5. **Outside of air quality benefits, the new code has significant economic benefits as well, starting with keeping utility rates low across the board.** According to Rocky Mountain Power, growing electricity demand from new buildings in Utah is increasing the need to raise utility rates in order to build transmission lines and other utility infrastructure, which is paid for through higher utility rates for all homeowners and businesses. Building homes to current energy conservation standards keeps energy costs down for everyone.
6. **Before I close, I want to encourage you to keep in mind consumer.** Over the 50 to 100 year lifetime of any given home, it will have multiple owners and occupants who rely on the good judgment and common sense of the first builder to ensure their home isn't needlessly wasting energy and costing them money. It is a lot cheaper and easier to build-in efficiency to a home rather than having to spend thousands retrofitting inefficient home energy systems.

According to a 2012 Conservation in the West poll 76% of Utah's voters say they would "require developers to meet updated standards to reduce energy waste and reduce home owners' utility bills, even if it increases the price of brand new homes by somewhere between one and eight thousand dollars." This opinion is held by a majority of voters in every geographic region (urban, suburban, rural), as well as majorities across the political spectrum.<sup>8</sup>

Finally, According to a 2013 survey of Utahns conducted by Heart & Mind Strategies, "Improved energy efficiency in homes" ranked as the 2<sup>nd</sup> most important strategies to improve air quality in Utah after expanding public transit.<sup>9</sup> Utahns recognize that, as we reduce air pollution from vehicles, homes and buildings are the next priority.

The Utah Legislature and Utah communities rely on your expertise and review to inform the Uniform Building Code Commission about which building and energy codes best serve the public interest. I and the others listed on this letter respectfully request that you consider the long-term air quality and financial impacts to Utah families and businesses during your review of the 2015 IECC, and encourage you to recommend its full adoption to the Uniform Building Code Commission. Thank you.

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<sup>8</sup> Public Opinion Strategies and Fairbank, Maslin, Maullin, Metz & Associates, *The 2012 Conservation in the West Poll*, January 2012, <https://www.coloradocollege.edu/dotAsset/d1fdf33f-584a-47f7-baba-a34feb9221e8.pdf>

<sup>9</sup> Heart & Mind Strategies, *Utah Air Quality Quantitative Findings*, September 25, 2013, <http://envisionutah.net/news-and-events/envision-utah-blog/item/295-99-of-utahns-are-willing-to-take-personal-action-to-improve-air-quality>

# Impacts of Adopting the 2015 IECC in Utah

This fact sheet provides the potential impacts from updating Utah's current residential energy code to the 2015 International Energy Conservation Code (IECC).<sup>1</sup>

The benefits of new homes in Utah being built to the 2015 IECC are significant. If homes built in 2017 met the 2015 IECC then by 2040 Utah would...



**Protect families from losing an estimated \$95 million annually and \$1.07 billion cumulatively in energy costs<sup>2</sup>**



**Reduce energy demand by about 7.57 trillion Btu of energy annually including 3.51 trillion Btu in electricity, 3.22 trillion Btu in natural gas, and 0.83 trillion Btu liquefied petroleum gas<sup>3</sup>**

- Lower the projected energy demand of Utah's building sector in 2040 by 4.1%<sup>4</sup>



**Reduce cumulative CO<sub>2</sub> emissions by an estimated 5.06 million metric tons<sup>5</sup>**

- Annual CO<sub>2</sub> emission reductions equivalent to CO<sub>2</sub> emissions from 36,496 homes' energy use and the greenhouse gas emissions from 84,211 passenger vehicles<sup>6</sup>

## Improve Utah's Housing Stock and Avoid Costly Retrofits

Buildings that meet or exceed the 2015 IECC are more durable, comfortable, have fewer drafts, and protect homeowners and tenants from high energy costs.

Ensuring that homes are built to current energy efficiency standards is more cost-effective than retrofitting the homes later or providing homeowners with subsidies to reduce high energy costs. Over \$20 million in public funding is spent annually to assist low-income Utah households with energy bills.<sup>7</sup> In 2013, Utah investor-owned utilities spent over \$36 million in incentive programs to upgrade the energy efficiency of homes in Utah.<sup>8,9</sup> Over time, strong energy codes reduce the need for families to rely on assistance to afford energy for their homes.

## Consumers Come Out Ahead

Homes built to updated energy codes typically result in monthly energy cost savings that exceed increases in the down payment and monthly mortgage,<sup>10</sup> providing a positive cash flow for consumers.

Lower monthly energy bills also:

- Improve the standard of living for families
- Strengthen local economies across Utah by providing consumers with more disposable income





# An analysis of the impact from adopting the 2015 IECC as the residential energy code in Utah

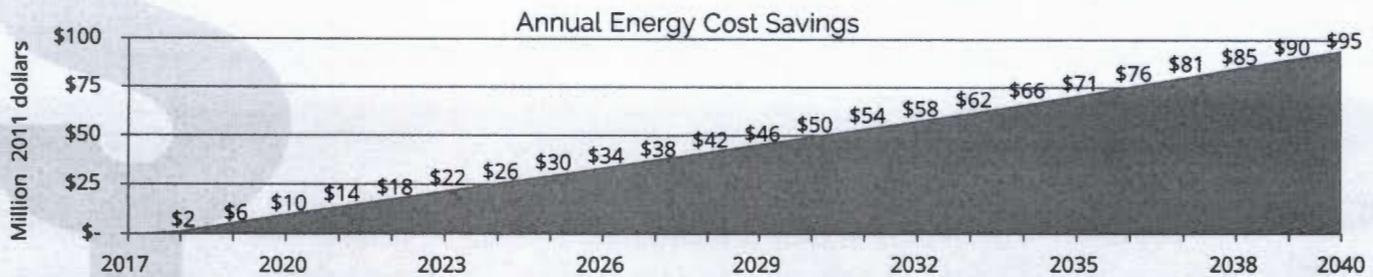
This analysis provides the estimated statewide impact in 2040 from updating Utah's residential energy code by the start of 2017 to the 2015 International Energy Conservation Code (IECC).<sup>1</sup>

The 2015 IECC prescribes minimum energy performance requirements that will protect Utah's from high energy costs, lower the state's energy demand, and reduce CO<sub>2</sub> emissions.

## FINANCIAL IMPACT IN 2040

### Families are protected from losing \$95 million in energy costs

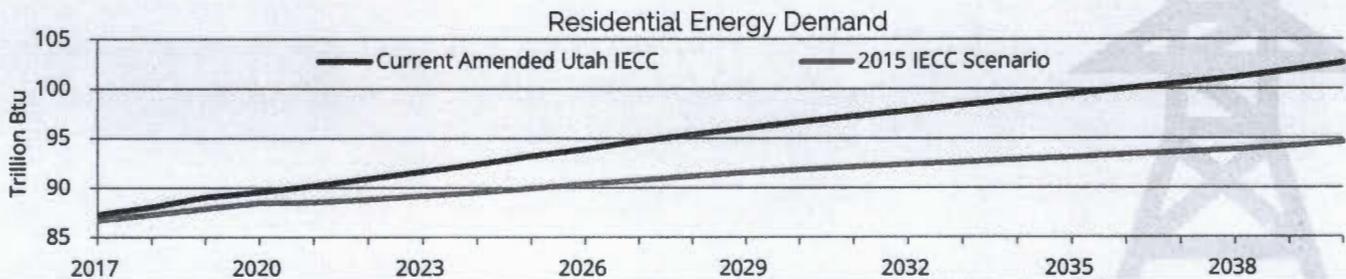
Updating Utah's residential energy code to the 2015 IECC will protect owners and tenants of residential homes from losing \$95 million in energy costs in 2040. The cumulative savings from 2017-2040 are \$1.07 billion.<sup>2</sup>



## ENERGY DEMAND IMPACT IN 2040

### Lower the projected residential energy demand by 7.3% in 2040

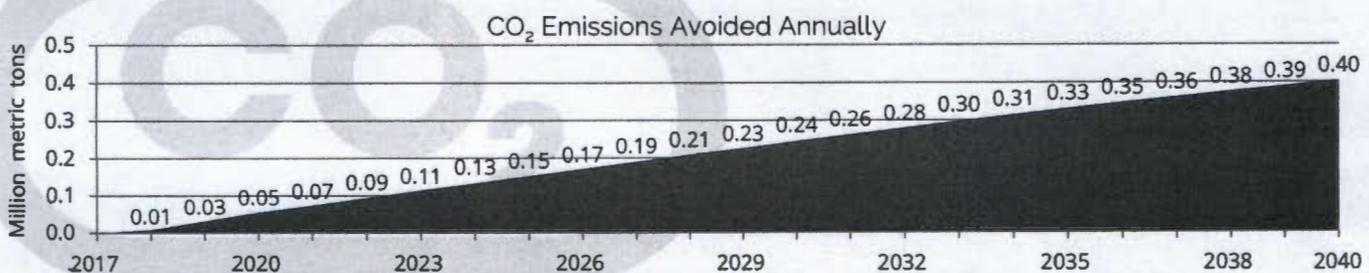
Utah avoids using 7.57 trillion Btu in 2040 that includes 3.22 trillion Btu in natural gas, 3.51 trillion Btu in electricity, and 0.83 trillion Btu in liquefied petroleum gas.<sup>2,3,4</sup>



## CO<sub>2</sub> EMISSIONS IMPACT IN 2040

### 0.40 million metric tons of CO<sub>2</sub> emissions are avoided

CO<sub>2</sub> emission reduction is equivalent to the current average annual greenhouse gas emissions from 85,033 passenger vehicles or the average CO<sub>2</sub> emissions from 36,853 homes' annual energy use.<sup>5</sup> Cumulative CO<sub>2</sub> emissions avoided from 2017-2040 are 5.06 million metric tons.



## ADDITIONAL BENEFITS

**Lower demand for public assistance and utility incentive programs**

Over \$20 million in public funding is spent annually to assist low-income Utah households with energy bills.<sup>6</sup> In 2013, Utah investor-owned utilities spent over \$36 million in incentive programs to upgrade the energy efficiency of homes in Utah.<sup>7, 8</sup> Ensuring that homes are built to the 2015 IECC is more cost-effective than reducing the burden of high energy costs through financial assistance or energy efficiency retrofits.

Homes built to updated energy codes typically result in monthly energy savings that exceed increased mortgage payments resulting from the cost of the efficiency improvements.<sup>9</sup> Over time, strong energy codes reduce the need for families to rely on assistance to afford energy for their homes.

1. This analysis assumes that Utah's current residential energy code is 10.3% more efficient than the 2006 IECC. The current Utah residential energy code includes provisions from the 2006, 2009, and 2012 IECC. The stringency of the current residential energy code is based on findings from "Energy Savings Analysis of HB 202 as compared to 2006 IECC" prepared by the Southwest Energy Efficiency Project (2013).

2. Financial savings and energy demand estimates are calculated from the Building Code Assistance Project (BCAP) Code Calculator. The calculator is a tool that estimates energy cost (in 2011 dollars) and energy demand reductions from state adoption and compliance with residential and commercial energy codes. The calculator compares a model code scenario to a baseline scenario based on the Annual Energy Outlook (AEO) reference case published by the U.S. Energy Information Administration. Energy costs are based on AEO 2013.

This analysis assumes an 85% compliance rate across code cycles. Details on the methodology behind BCAP's code calculator are available in the BCAP Code Calculator Primer at: <http://energycodesocean.org/resource/bcap-codes-savings-estimator-primer>

3. The 0.83 trillion Btu savings represent savings from all petroleum products, including distillate fuel oil and kerosene in addition to liquefied petroleum gas.

4. All figures for energy savings refer to source energy. Source energy is the raw fuel required to operate the building, including all transmission, delivery, and production losses in getting the energy from the power plant to the building.

5. U.S. Environmental Protection Agency (EPA). "Greenhouse Gas Equivalencies Calculator." <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>.

6. U.S. Department of Health and Human Services. LIHEAP Clearinghouse. The federal Low-Income Home Energy Assistance Program (LIHEAP) is a program that pays a portion of utility bills for low-income households. Data cited includes tribal awards. <http://www.liheapch.acf.hhs.gov/Funding/funding.htm>

7. Questar Gas Thermwise Weatherization Program, \$15.3 million . <http://www.psc.utah.gov/utilities/gas/12docs/1205714/249531QGC%27s%20Report%20on%20DSM%20Expenditures%20and%20Decatherm%20Savings%20to%20Date%2012-24-2013.pdf>

8. Rocky Mountain Power, Home Energy Savings Program, \$20.8 million. [http://www.pacificorp.com/content/dam/pacificorp/doc/Energy\\_Sources/Demand\\_Side\\_Management/2014/2013-UT-Annual-Report-FINAL-Report-051614.pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Demand_Side_Management/2014/2013-UT-Annual-Report-FINAL-Report-051614.pdf)

9. Assuming a standard 15-year or 30-year mortgage, where a buyer's 20% mortgage down payment is increased incrementally due to the increased home price resulting from building to the energy code.



# An analysis of the impact from adopting the 2015 IECC as the residential energy code in Utah



The Building Codes Assistance Project (BCAP) Code Calculator estimates the impact of adopting new energy codes or improving compliance with existing energy codes in residential and commercial buildings. This fact sheet provides a background on the calculation method used by the Code Calculator.

The estimates rely on federal data sets primarily from the U.S. Energy Information Administration Annual Energy Outlook, with supporting data from the U.S. Census Bureau on housing construction, the U.S. Environmental Protection Agency on emission equivalencies, and the National Oceanic and Atmospheric Administration (NOAA) on state-specific weather data.

## **The code calculator follows five primary steps to estimate impacts from code changes:**

### ***Step 1. Estimate current energy use in residential buildings***

The calculator estimates state-level residential building energy use based on the current residential stock in the state divided by the state's residential energy use. The calculator only considers the energy use in its estimate from sources covered by energy code requirements. These end-use energy sources are space heating, space cooling, water heating, and lighting equipment.

The data to perform this calculation is provided by the Annual Energy Outlook and the Residential Energy Consumption Survey. Some states in the Residential Energy Consumption Survey are grouped into regions. For states where only regional energy data is available, BCAP bases the state energy use on the proportion of the population in the state against the population in the region.

### ***Step 2. Estimate future energy use in residential buildings without code improvements***

The calculator adds the state's estimated energy use from space heating, space cooling, water heating, and lighting through 2040 to the estimate calculated in step 1 (the state's current residential energy use).

The Annual Energy Outlook and the Residential Energy Consumption Survey provide estimated building shell and equipment efficiency improvements that are expected from new technology and standards through 2040.

The Annual Energy Outlook estimates that the building shell becomes more energy efficient over time even before additional code improvements. These surveys also take into account new home builds and demolitions based on data from the U.S. Census Bureau. Data on heating and cooling degree days from NOAA are factored into state level estimates.

Step 1 and step 2 provide the baseline reference case from which to compare a new code.

### ***Step 3. Estimate future energy use in residential buildings with code improvements***

The calculator creates a second case scenario where the efficiency of the building shell and lighting is improved from the current code to the new code. Equipment efficiencies covered by federal standards are held at the standard Annual Energy Outlook projections.

### ***Step 4. Compare the baseline reference case to the new code scenario***

The difference between the baseline reference case, primarily informed by the Annual Energy Outlook, and the new code scenario are compared. The impact estimates are provided in the state fact sheet.

### ***Step 5. Prepare equivalency estimates***

The calculator provides emission savings estimates from a range of sources based on the differences in the reference case and the improved scenario.

The equivalencies provided are based on data from the U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator. These results provide a practical comparison from the savings estimated to common energy consuming activities.



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UTAH  
ASSOCIATION  
OF ENERGY USERS

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Salt Lake City, Utah 84111  
Ph: (801) 355-4374 Fax: (801) 521-9142

Uniform Building Code Commission  
Division of Occupational & Professional Licensing  
Heber M. Wells Building  
160 East 300 South  
Salt Lake City, UT 84111

June 2, 2015

Dear Commission,

The Utah Association of Energy Users (UAE) is an organization with more than 35 members including many large energy users with operations in the State of Utah that represent a diverse group of universities, hospitals, and companies in the aerospace, retail, mining, steel, and oil and gas industries, among others. As a strong proponent of cost-effective energy efficiency and conservation measures, UAE supports the adoption of rigorous energy efficiency requirements in Utah building codes.

It is our understanding that the Uniform Building Code Commission and its Advisory Committees are currently undertaking a formal review of the new 2015 International Energy Conservation Code (IECC). The adoption of the most current energy codes will improve the efficiency of Utah homes significantly, estimated at 15-20% because the current Utah IECC code is so out of date, as well as improve the efficiency of commercial buildings

During the 2015 General Session, House Bill 285 would have changed Utah's building code adoption cycle for new single family homes from every three years to every six years. Although the bill failed to pass, it is expected to be proposed again next session. If this six-year code cycle bill were to pass without the 2015 IECC first being adopted, an estimated 60,000 new homes may be built in Utah with out-of-date energy efficiency standards through at least 2022 (the next time an updated model code would be reviewed).

Failure to adopt the updated energy code would guarantee wasteful and needless energy consumption in Utah, which will negatively impact *all Utah utility ratepayers*, including UAE's industrial and commercial energy users, in at least two ways: (1) through higher energy costs as Rocky Mountain Power either generates or purchases additional power (particularly at expensive peak hours); and (2) through costly subsidies built into utility energy efficiency programs designed to help convince consumers to retrofit their homes and businesses with efficiency measures *after the fact*.

JUN 04 2015

DIVISION OF OCCUPATIONAL  
& PROFESSIONAL LICENSING

We understand that the Uniform Building Code Commission will provide its recommendations to Utah lawmakers during the Legislature's Interim Session this summer, which will then be discussed during the 2016 Legislative Session. UAE urges the Commission to recommend opposing the adoption of the six-year cycle *without first* adopting the full 2015 IECC.

We appreciate your attention to this critical matter as energy prices continue to climb. Utah has long prided itself on relatively low energy costs, which serve as a powerful economic development tool. The competitiveness of Utah business has long benefitted from these low energy costs. UAE is anxious to keep Utah's energy rates low. Requiring energy efficient homes and buildings to be built in Utah will not only help slow the increase in energy costs, but also help reduce emissions. Improving air quality will help the State meet its State Implementation Plans, including those that must respond to impending Environmental Protection Agency carbon rules.

Sincerely,

A handwritten signature in cursive script that reads "Kelly Francone". The signature is written in black ink and is positioned above the printed name and title.

Kelly Francone  
UAE Executive Director  
[www.utahenergyusers.org](http://www.utahenergyusers.org)



**Envision  
Utah**

Dear Governor Herbert, President Niederhauser, and Speaker Lockhart,

As you know, Utah's air quality is an issue that matters to everyone. While poor air quality during the winter ranks as Utahns' greatest concern about their quality of life, poor air quality during the summer is also becoming an issue. Our air quality affects our health and the health of our families. It also impacts our economy as we seek to recruit and retain businesses and a high-quality workforce.

On October 15, 2013, Governor Herbert asked Envision Utah to convene and facilitate the Clean Air Action Team. The individuals on the team represent a broad spectrum of interests and expertise in our community, including representatives from health care, business, nonprofit organizations, government, academia, transportation, and others. This independent Team was tasked with working to provide a set of broadly supported recommendations to improve our air quality.

The Team was asked to work throughout 2014 to provide recommendations. At the beginning of 2014 the Clean Air Action Team recommended several interim strategies. These and other strategies have been refined over the past year to comprise a set of comprehensive recommendations that will significantly improve Utah's air quality in the winter and summer. These recommendations are intended to complement and add to the actions proposed in the current State Implementation Plan process.

We encourage policymakers, businesses, and individuals to study and implement the recommendations of the Clean Air Action Team.

Sincerely,

Lonnie Bullard  
Chairman  
Jacobsen Construction  
Team Co-Chair

Michelle Hofmann, MD, MPH  
Medical Director  
Riverton Hospital's Children's Unit  
Team Co-Chair

Robert Grow  
President and CEO  
Envision Utah  
Team Facilitator



## Clean Air Action Team Recommendations

Poor air quality during certain periods of the year ranks as Utahns' greatest concern about their quality of life, and it threatens not only our health but our economy as we seek to recruit and retain businesses and a high-quality workforce.

On October 15, 2013, Governor Gary Herbert asked Envision Utah to convene and facilitate the Clean Air Action Team, which includes representatives from health care, business, nonprofit organizations, government, academia, transportation, and more. This independent team was tasked with working to provide a set of broadly supported recommendations to improve our air quality.

The team's consensus recommendations are set forth below. Combined with the controls that are already being put into place through the state's State Implementation Plan efforts, these recommendations will make a substantial difference in the amount of emissions we put into our air. Moreover, the projected cost to Utahns is fairly minimal (see Figure 2).

With about half of our emissions coming from automobiles and another 40% coming from buildings and other "area sources," most of our air pollution originates from our own cars, homes, and businesses. These recommendations target those emission sources, with particular emphasis on strategies that (1) result in substantial reductions in emissions, and (2) require relatively little expense. With concerted action, together we can clean our air.

As Utah's population continues to grow, these actions become even more imperative. By 2050, the Governor's Office of Management and Budget estimates that the state's population will nearly double. In our urban areas where air quality is a challenge, that translates to roughly doubling the number of miles we drive and the number of buildings that need to be heated. To improve our air quality, we will need to significantly reduce the amount of pollution each person produces.

## Emission Inventories

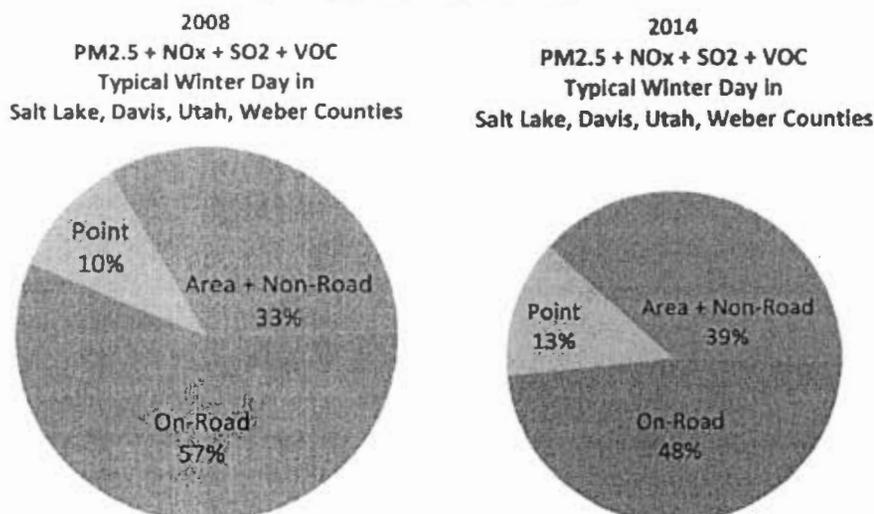


Figure 1. Source: Utah Division of Air Quality

## Summary of Recommendations

1. Ensure Utahns have access to low-sulfur Tier 3 fuel as soon as possible.
2. Accelerate the transition to cleaner Tier 3 cars. If all cars and fuel were Tier 3 by 2050 we would remove approximately 62% of mobile emissions per day from our air.
3. Reduce the amount of wood burning that occurs during inversion periods. Eliminating residential wood burning would decrease daily area source emissions by about 5% in 2050.
4. Invest additional resources in public transportation and facilities that make "active transportation" modes like biking and walking more convenient. By 2050, if we reduce the number of miles driven per capita by 10% we would reduce daily mobile emissions by roughly 8%.
5. Allow the Air Quality Board and Division of Air Quality to adopt rules that are more stringent than federal regulations and continue to give the Division of Air Quality sufficient budget to continue effectively achieving its mission.
6. Adopt a rule to require suppliers to sell only ultra-low NOx water heaters. Replacing all water heaters with ultra-low NOx models would reduce daily area emissions by about 5.3% in 2050.
7. Increase the energy efficiency of our existing and new buildings. Increasing the efficiency of existing buildings could reduce area source emissions by about 1.7%. Increasing new building efficiency by 50% would eliminate approximately 2.4% of our area source emissions by 2050.
8. Continue current efforts to reduce emissions from the oil & gas operations within the Uintah Basin.

| Strategy  | Annual Cost Per Household |
|---|---------------------------|
| Tier 3 Cars and Fuel                                  | \$ 11                     |
| Eliminate Wood Burning                                | \$ -                      |
| Ultra-Low NOx Water Heaters                           | \$ -                      |
| Improve Energy Efficiency of All Older Buildings      | \$169                     |
| Improve Energy Efficiency of All New Buildings by 50% | Net savings of \$95       |

Figure 2. Source: US EPA, Utah Division of Air Quality, and Utah Clean Energy

## How Our Pollution is Formed

In Utah's urban areas, wintertime particle pollution creates the greatest air quality concerns. Particle pollution (also called particulate matter or PM) is the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope. The particles that cause the most concern to Utahns in the winter are commonly referred to as PM2.5, meaning that each particle is 2.5 micrometers or smaller in size, or significantly smaller than the diameter of a human hair.

While some of our PM<sub>2.5</sub> is put into the air directly from things like wood burning and cars, much of it is formed in the air through chemical reactions. The two types of emissions that contribute most to these reactions are NO<sub>x</sub> (Nitrogen Oxides) and VOCs (Volatile Organic Compounds). Most NO<sub>x</sub> is produced from burning fossil fuels. VOCs are emitted as gases from certain solids or liquids. Organic chemicals are widely used as ingredients in household products. Paints, varnishes, and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing, and hobby products. Fuels are made up of organic chemicals. All of these products can release organic compounds while you are using them, and, to some degree, when they are stored.

Ozone pollution can also be a concern in Utah's urban areas during the summer months, or in the Uintah Basin during the winter. Ozone (O<sub>3</sub>) naturally occurs high in our atmosphere, where it blocks harmful ultraviolet rays from reaching earth's surface. In contrast, ozone in the lower atmosphere is unnatural and harmful to health. VOC and NO<sub>x</sub> emissions, combined with heat and sunlight, allow for chemical reactions that produce ozone. The summers in Utah create a perfect environment to produce high levels of ozone in the lower atmosphere.

Reducing our PM<sub>2.5</sub> emissions results in a direct improvement in our air quality and a direct reduction in the PM<sub>2.5</sub> that we breathe. Reductions in gases like NO<sub>x</sub> and VOCs also reduce the PM<sub>2.5</sub> and ozone that we breathe. Reducing NO<sub>x</sub> and VOC emissions will improve our air in the winter and summer. As a result, while the discussion herein primarily focuses on wintertime emissions, the recommended strategies will also reduce summertime ozone pollution.

## Vehicles and Fuel

Vehicles make up approximately half of local emissions, a proportion that is decreasing as older cars are phased out and newer, cleaner cars are phased in (see Figure 1). Reductions in the pollution emitted by our cars—through “Tier 3” cars and fuel—are projected to have a significantly greater impact in emissions reductions than any other strategy.

Tier 3 refers to an integrated system of vehicle and fuel standards nationwide that the EPA has adopted to replace the prior Tier 2 standards. The standards are being phased in from model year 2017 to model year 2025. With both the vehicles and fuel working together, the Tier 3 standards will reduce volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) emissions by 80% on a fleet average basis and direct particulate emissions by 70% on a per vehicle basis. These reductions are achieved through improved vehicle emissions standards and by reducing the amount of sulfur in fuel from an average of 30 ppm to 10 ppm. The low-sulfur fuel is important because sulfur reduces the effectiveness of the advanced pollution control equipment in the vehicles.



The greatest short-term benefit comes from lower-sulfur fuel, because using it would reduce emissions even in the cars we drive today. Tier 3 standards are projected to reduce total NO<sub>x</sub> emissions by 10% and total VOC emissions by 2.8% in 2018, primarily due to lower-sulfur fuel, assuming such fuel is available in Utah. As more people buy the cleaner cars, Tier 3 cars will provide an even greater benefit over time, resulting in reductions by 2030 of total NO<sub>x</sub> emissions by 24.7% and total VOC emissions by 15.5%. Under Tier 3 standards, there is no place in the US that stands to benefit as much as Utah, with 7 counties projected to have some of the largest 24-hour fine particulate improvements in the US relative to all other US counties (Figure 3).

Tier 3 cars are projected to cost on average \$72 more than current Tier 2 cars. Tier 3 gasoline standards are estimated by the EPA to increase the cost of gasoline by less than a penny per gallon on a national basis. The actual cost to produce the cleaner fuels in Utah is unknown.

The EPA has adopted Tier 3 for phase-in beginning in model year 2017. Utah's refineries would likely have several years to comply after that date, and many will not actually be required to produce or sell Tier 3 fuels in Utah at any date. The EPA's proposed fuel standards include an "averaging, banking, and trading" system that allows refiners and importers to spread out their investments, which means they would only need to meet a nationwide average to satisfy the fuel standards; if a large gasoline producer decides to produce cleaner fuel in another state, it may be able to average that out by producing fuel that is not as clean in Utah. The Clean Air Act also contains provisions that generally prevent an individual state like Utah from adopting its own fuel standards.

Without the lower-sulfur fuel, a significant portion of the emissions reductions from Tier 3 cars will not occur because sulfur from the fuel "fouls" the emissions control equipment and causes it to function sub-optimally.

**Recommendation 1:** Work with the applicable refineries to ensure Utahns have access to low-sulfur fuel as soon as possible. Most of the fuel sold in Utah is produced by a handful of refineries in Utah and Wyoming. While a few of these refineries will be required to produce fuel below 10 parts per million sulfur, others can average out their sulfur content with refineries elsewhere. Working with these refineries to ensure Utahns can buy lower-sulfur fuel is critical to improving our air quality, in both the short- and the long-term.

**Recommendation 2:** Accelerate the sale and purchase of cleaner cars in Utah even sooner than model year 2017 through public education and other means. These cars are already being manufactured and sold in the United States; a car with a smog rating of 8 or higher generally meets Tier 3 emission standards. (Smog ratings run from 1 to 10, with 10 being the cleanest. Smog ratings for all new cars are shown on the window stickers.) To encourage

those who buy cars between now and 2017 to purchase cleaner cars, educational efforts are needed, as well as conversations with auto dealers. Incentives should also be considered.

### Reductions in PM<sub>2.5</sub> Due to Tier 3 in 2030 by County

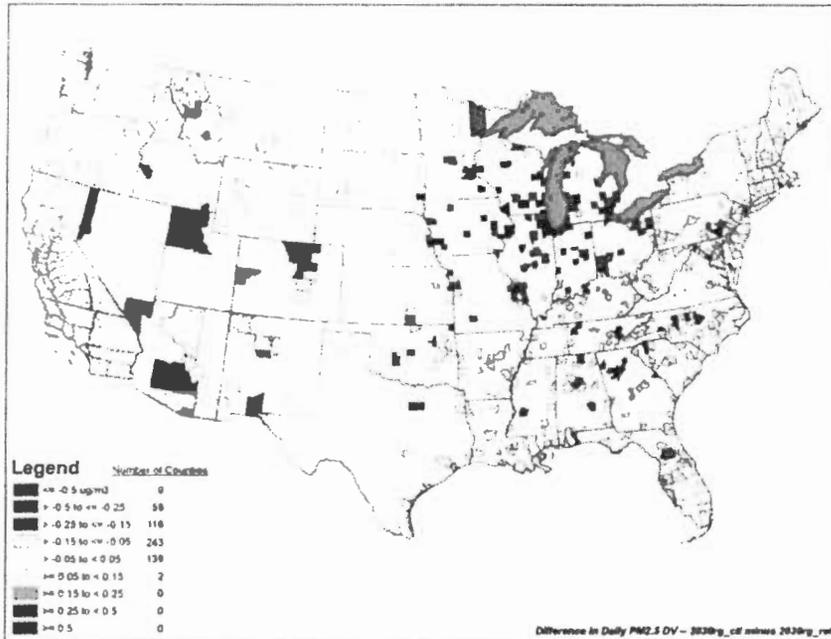


Figure 3. Source: United States Environmental Protection Agency

### Wood Burning

Wood burning has a large impact on air quality. Along the Wasatch Front, it may contribute somewhere between 5 and 15% of total direct fine particulate matter emissions during inversions. While we also experience a significant amount of additional particulate pollution that is formed through chemical reactions in the atmosphere, reducing direct emissions of particulates has a direct benefit. Based on EPA emission factors, heating one home with a wood burning stove as a sole heating source is equivalent to 200 homes heated with natural gas in terms of direct fine particulate and 500 homes in terms of volatile organic compounds.<sup>1</sup> Not only does wood burning have implications for poor air quality in the ambient air shed, it also has health implications for air quality within the homes in which the wood burning occurs.

<sup>1</sup> Kelly, Kerry et al. "Contribution of Woodsmoke to PM<sub>2.5</sub> During Wasatch Front Inversions." PowerPoint presentation. Salt Lake City, UT. 15 Jan 2014.



Since the Clean Air Action Team issued its preliminary recommendations in January 2014, significant progress has been made on this issue. The standard has been changed so that burning will be restricted earlier in an inversion when poor air quality is forecast. The list of homes registered as having wood burning as their sole source of heat - and therefore as being able to burn even on restricted days - is being shortened, and money has been appropriated to convert these homes to other forms of heating.

The extent to which wood burning occurs in homes, other than those that are registered as sole-source homes, or in commercial establishments, is not fully known, but it is estimated that sole source homes account for only a fraction of the emissions due to wood burning.

**Recommendation 1:** Continue to reduce the need for a "sole source" exemption to wood burning restrictions, with the goal of eventually eliminating the exemption. This may require additional funding to replace wood burning stoves and fireplaces with other heating sources in those homes that are currently registered as sole source. Eliminating the exemption would improve air quality and simplify enforcement of wood burning restrictions.

**Recommendation 2:** Increase the enforcement of wood burning restrictions. Increased enforcement could take the form of additional inspectors as well as increased fines. In addition, phone numbers and other methods for reporting violations should be simplified and widely publicized, such that it is easy for people to report violations and reports result in swift action.

**Recommendation 3:** Provide widespread public education about the air quality and health impacts of wood burning. Much is already being done on this front, and these efforts need to be continued and enhanced.

## Reducing Driving Through Public and Active Transportation

Our roads are already congested with traffic. As the population continues to grow, how will our transportation infrastructure handle the increase in cars? Reducing average personal vehicle miles traveled per day will reduce emissions; one of the best ways to clear the air is to take cars off the road. When a cold engine is started it takes a couple minutes for the "emissions control equipment" to warm up and function efficiently. About 24% of daily vehicle emissions come from the first few minutes of driving, from the "cold start." Shifting trips from cars to public transportation, walking, bicycling, and carpooling would reduce the number of cold starts.

In addition, shifting trips away from cars—or even shortening the trips we drive—will reduce traffic congestion. This has significant benefits for air quality, and it also improves our quality of life and reduces the amount of money we need to spend on roadway infrastructure.

How can we accomplish this? One key is to make travel by modes other than the automobile more convenient. This involves investing in infrastructure and equipment for public transportation and “active transportation” like biking and walking.

**Recommendation 1:** Invest additional resources in public transportation. Currently, public transportation replaces 120,000 car trips each day and carries 25% of commuters to downtown Salt Lake City. According to the Utah Transit Authority, this eliminates 2,000 tons of emissions each year, and an additional ¼ cent sales tax for public transportation could expand service in a way that would immediately increase ridership by over 50%, and by almost 90% within five years, resulting in an annual emissions reduction of 3,600 tons.

**Recommendation 2:** Invest additional resources in facilities that make “active transportation” modes like biking and walking more convenient. These facilities could include trails, sidewalks, bike lanes, “wayfinding,” pedestrian safety investments, and other infrastructure. Particularly important is improving the convenience of biking and walking in proximity to passenger rail and bus rapid transit stations.

### **Grant Sufficient Budget and Authority to the Division of Air Quality and the Air Quality Board**

Increased budget and authority would allow the Division of Air Quality to more effectively take action to clean the air. The Division could use the funding to increase research and analysis, enforcement, and public education. Added authority would enable effective regulation and enforcement.

**Recommendation 1:** Allow the Air Quality Board and Division of Air Quality to adopt rules that are more stringent than federal regulations. Utah problems require Utah solutions, not one-size-fits-all federal mandates. Because of our unique geography and climate conditions, Utah may need to adopt solutions unique to Utah, where such solutions are cost-effective (or cost-free) and make sense.

**Recommendation 2:** Continue to give the Division of Air Quality sufficient budget to continue to effectively achieve its mission. Recently, additional funding has been provided to DAQ for research and other activities, and this increased funding level should continue.

### **Ultra-Low NOx Water Heaters**

Burning natural gas in homes, whether in furnaces, water heaters, or other appliances, produces nitrogen oxides (NOx), which react with other gases in the air to form particulate matter. Water heaters make up approximately 45% of a building’s emissions. Ultra-low NOx

water heaters emit 70% less NO<sub>x</sub> than their counterparts. If every water heater were replaced with the ultra-low NO<sub>x</sub> variety, building emissions would be reduced by about 37%. The average life of a water heater is 7 years, and it is estimated that within 10 years almost all our water heaters could be ultra-low NO<sub>x</sub> models. Although ultra-low NO<sub>x</sub> water heaters do not increase energy efficiency, they do not cost more to manufacture than standard water heaters, and it is estimated that if the demand for ultra-low NO<sub>x</sub> water heaters in Utah increased this product would be brought to local stores, making the cost and availability comparable to what Utahns experience today with standard water heaters.

**Recommendation:** Adopt a rule to require suppliers to sell only ultra-low NO<sub>x</sub> water heaters as of a date 2-3 years in the future, to allow suppliers to move out their current inventories of water heaters. This rule would be adopted by the Air Quality Board.

### Existing Building Energy Efficiency Improvements

In Utah's urban areas where air quality is an issue, there are about 750,000 buildings (both homes and businesses), and the emissions from natural gas heating produce about 12 tons of emissions on a typical winter day. Retrofitting residential homes can increase their energy efficiency by approximately 30%, which would subsequently decrease emissions by 30% and save homeowners on utility costs. Improvements may include improving weather stripping, adding or upgrading insulation, upgrading windows, replacing furnaces, or other actions. Average costs for retrofits of residential homes are approximately \$5,000. Retrofitting multi-family buildings and businesses can increase efficiency by 12.5% to 15.8% depending on the measures taken. Some of the measures that can increase a building's efficiency include retrocommissioning, energy audits, lighting upgrades, and upgraded equipment. The average cost for these commercial building improvements varies depending on the measures implemented. Actions such as retrocommissioning and energy audits are relatively inexpensive and have a payback period of less than one year. Upgrading heating and cooling equipment has a larger effect on a building's efficiency but also has a longer payback period of five or more years. The sooner these buildings become more efficient the sooner our emissions will be reduced.

**Recommendation 1:** Amend the State Code to include enabling legislation for Residential PACE programs to finance home energy efficiency improvements. PACE is a financing program to help with the upfront cost of energy efficiency improvements and renewable energy measures. Local governments provide loans to home owners who would like to improve the energy efficiency of their home; these loans are paid back through property assessments. The annual utility savings are greater than the annual payments would be under a PACE program, making building improvements completely affordable. In 2013, Senate Bill 221 authorized local governments to adopt PACE for commercial buildings in Utah; we

recommend amending this bill to also include PACE for homes and other residential buildings.

**Recommendation 2:** Educate the public about existing energy efficiency financing programs and expand these programs. For example, Questar's Thermwise and Rocky Mountain Power's Wattsmart programs provide rebates to home builders, businesses, and homeowners for a plethora of qualifying energy efficiency improvement efforts. Their websites outline the specific options including choosing to build more efficient, upgrading appliances, replace windows and insulation, or simply downsize energy use. Wattsmart provides free weatherization services to income-qualifying home owners; Thermwise has Home Energy Plans and Personalized Energy Comparison Reports readily available on their website. The more widespread this information becomes, the more people will opt to retrofit their homes.

### **New Building Construction**

By 2050 Utah's air quality-challenged urban areas are projected to have nearly 800,000 new buildings. As we more than double the number of buildings in these areas, nitrogen oxide (NOx) emissions from area sources will become a larger portion of the overall emissions. Improving the energy efficiency of new buildings will decrease these emissions as well as save on energy use. The technology and designs are readily available. Every building that is built to a higher energy standard today is a building that won't need to be retrofitted later.

**Recommendation 1:** Update the state building code to include the energy efficiency standards of the 2015 International Energy Conservation Code. This would increase new home energy efficiency by close to 50%. On average, building to the 2015 code adds around \$10,000 to building costs for a single family home. Accounting for the increase in monthly mortgage payments and the decrease in monthly utility bills the average annual savings would be about \$12.

**Recommendation 2:** Require that a Home Energy Rating System (HERS) score be included in MLS listings. HERS is a nationally recognized system that sends certified home energy raters to inspect and calculate a home's energy performance. The U.S. Department of Energy has established the average resale score at 130 HERS. The more efficient a home is, the lower HERS score it will have. Lower scores also allow for a higher resell price on a home. HERS teaches homeowners and builders how to analyze and improve energy efficiency and thus the value of a home. Multiple Listing Service (MLS) is a free, national search engine for finding real estate for sale by realtors. Showing a HERS rating on MLS would allow energy efficiency to be factored into a home's value, providing information to prospective purchasers and facilitating free market responses to improve energy efficiency.

## Uintah Basin

While ozone is typically a summertime problem in urban areas, the Uintah Basin experiences increased ozone levels in the winter. Most of the emissions that cause elevated ozone levels are associated with oil and gas operations on public, private, and tribal lands in the area. The majority of the oil and gas emissions contributing to ozone are from oil tanks and pneumatic devices and pumps.

In order to improve air quality in the Uintah Basin, we express support for continued and enhanced efforts, working closely with stakeholders in the Uintah Basin.

**Recommendation 1:** Continue current efforts to regulate emissions from the oil & gas industries within the Uintah Basin on lands over which the state can exercise jurisdiction. This includes Rule UAC R307-401-19, which allows for quicker approvals in exchange for agreement on stricter standards and compliance. We also express support for the following four proposed rules that, if approved, would improve air quality in the Uintah Basin.

**R307-501**, which establishes general requirements for emission prevention and good air pollution control practices for all oil and gas exploration and production operations, well production facilities, natural gas compressor stations, and natural gas processing plants.

**R307-502**, whose purpose is to reduce emissions of volatile organic compounds from pneumatic controllers that are associated with oil and gas operations by requiring existing pneumatic controllers to meet the Federal standards established for new controllers.

**R307-503**, which establishes conditions to ensure that combustion devices used in the oil and gas industry are operated effectively.

**R307-504**, which establishes control requirements for the loading of liquids containing volatile organic compounds at oil or gas well sites.

**Recommendation 2:** Continue collaborating with and supporting tribal and Federal jurisdictions to reduce emissions on tribal lands in the Uintah Basin.

**Recommendation 3:** Continue to work with private industry to reduce emissions from oil & gas operations on public, private, and tribal lands in the Uintah Basin.

## About the Clean Air Action Team

On October 15, 2013, Governor Gary Herbert announced that he was asking Envision Utah to convene and facilitate the efforts of a Clean Air Action Team. The Action Team includes representatives from health care, business, nonprofit organizations, government, academia, transportation, and more. This independent team was tasked with working to provide a set of broadly supported recommendations to improve our air quality. These recommendations



can then be implemented by government, businesses, and individuals. It is the broadest group ever assembled in Utah to evaluate strategies and develop a holistic approach to solving our air quality issues. All ideas were on the table for evaluation.

#### Clean Air Action Team members:

- Lonnie Bullard, Jacobsen Construction (co-chair)
- Dr. Michelle Hofmann, Physician, Breathe Utah, University of Utah (co-chair)
- Stuart Adams, State Senator
- Patrice Arent, State Representative
- Ralph Becker, Mayor Salt Lake City
- David Brems, GSBS Architects
- Rebecca Chavez-Houck, State Representative
- Jeff Edwards, Executive Director, Economic Development Corporation of Utah
- Robin Erickson, Utah Clean Cities
- Ryan Evans, Salt Lake Chamber
- Matthew Eyring, Chief Strategy and Innovation Officer, Vivint Inc.
- Dr. Robert Gillies, State Climatologist
- Andrew Gruber, Executive Director, Wasatch Front Regional Council
- Susan Hardy, Mountainland Association of Governments
- Roger Jackson, FFKR Architects
- Ron Jibson, President and CEO, Questar
- Linda Johnson, Citizen
- Terry Marasco, Executive Director, Utah Moms for Clean Air
- Alan Matheson, State Planning Coordinator and Governor's Environmental Advisor
- Ben McAdams, Mayor Salt Lake County
- Nancy McCormick, State President, AARP
- Dr. Robert Paine, Pulmonologist, Program on Air Quality, Health, & Society, University of Utah
- Angelo Papastamos, UDOT Travelwise
- Dr. Edward Redd, State Representative and physician
- Dr. Bob Rolfs, Deputy Director, Utah Department of Health
- Steve Sands, Kennecott, Air Quality Board
- Joseph Shaffer, Director of Health, Tri-County Health, Uintah Basin
- Matt Sibul, Utah Transit Authority
- Amanda Smith, Executive Director, Dept. of Environmental Quality
- Lowry Snow, State Representative
- Dr. Charles Sorenson, CEO, Intermountain Health Care
- Peter Stempel, Stempel Form Architects
- Cody Stewart, Governor's Energy Advisor
- Kathy Van Dame, Air Quality Board
- Vicki Varela, Director, Utah Office of Tourism
- Ted Wilson, Executive Director, UCAIR
- Sarah Wright, Executive Director, Utah Clean Energy



## About Envision Utah

Envision Utah is a non-profit, nonpartisan organization committed to exploring the challenges and opportunities of growth in Utah. We engage people to create and sustain communities that are beautiful, prosperous, healthy and neighbourly for current and future residents. With the right vision, we can accommodate Utah's growing economy and increasing population without sacrificing the incredible quality of life that makes Utah great.

In 1997, Envision Utah launched an unprecedented public effort that brought together residents, elected officials, developers, conservationists, business leaders, and other interested parties to make informed decisions about how we should grow. Through a historic series of workshops and surveys, Envision Utah helped lay the groundwork for actions including:

- Development of TRAX and Frontrunner to add 140 miles of light rail, streetcar and commuter rail to Utah
- Creation of innovative housing and commercial projects like Daybreak and City Creek
- Dramatically slowing the rate of development of Utah's lands to preserve more open space for agriculture and recreation
- Decreasing household water consumption by 25%
- Decreasing our emissions by 47% among all pollutants
- Saving billions in reduced infrastructure costs

With Utah's population projected to grow by 2.5 million in the next three decades, Envision Utah is making history again with the Your Utah Your Future project, a statewide process that invites the public to get involved and decide how Utah will grow. Governor Herbert kicked the effort off in October 2013 and will kick off the public involvement effort this fall. The Clean Air Action Team is one element of the Your Utah, Your Future process.

Learn more at [www.envisionutah.org](http://www.envisionutah.org).

May 1, 2015

Uniform Building Code Commission Architectural Advisory Committee  
Uniform Building Code Commission Mechanical Advisory Committee Members  
c/o Dan S. Jones  
Bureau Manager  
Division of Occupational & Professional Licensing  
160 East 300 South  
Salt Lake City, UT 84111

Dear Advisory Committee members,

Thank you for volunteering your time and expertise to review and assess the impacts of new building codes on Utah families, businesses, economy, and air quality.

We, the undersigned members of Governor Herbert's Clean Air Action Team, are writing to express our support for updating Utah's construction codes to the latest energy conservation standards (2015 International Energy Conservation Code) for homes and commercial buildings. We request that the Committee vote to adopt the updated code.

Before we explain below why we think that updated energy codes are such an important air quality issue, we also wanted to make sure you know that updated energy codes were a unanimous recommendation of our group convened by Governor Herbert. The team, a diverse body including legislators, business representatives, experts and advocates, issued approximately 15 recommendations in October 2014 to the Utah Legislature and Governor Herbert, including: "Update the state building code to include the energy efficiency standards of the 2015 International Energy Conservation Code."<sup>1</sup>

Air pollution is a top concern of Utah resident and businesses, yet Utahns underestimate the contribution that homes and buildings play in poor air quality. In fact, homes and buildings are a growing contributor to Utah's air pollution, now contributing nearly 40% of the emissions that cause Utah's unhealthy air, according to recent data from the Utah Division of Air Quality. *Inefficient* new buildings contribute to increased air pollution, whereas energy-efficient new homes and commercial buildings represent an important long-term air pollution reduction strategy by reducing energy consumption and resulting pollution emissions over the 100+ year life of the structure. It's much more cost-effective to build-in energy efficient, air pollution reduction technologies during construction, rather than retrofitting a home after it is constructed

As you know, Utah's current energy code for new homes is out-of-date, only requiring new homes to be built slightly better than the 2006 energy code. Last year, the Utah Legislature considered House Bill 285, which would have changed Utah's building code adoption cycle for new single family homes from a three-year cycle to a six-year cycle. This legislation will likely be proposed again and we believe that the

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<sup>1</sup> <http://envisionutah.net/issues/item/305-clean-air-action-team>

2015 IECC should be adopted for new homes and commercial buildings *prior to a six-year building code cycle taking effect*. Further delays to the adoption of new energy codes increases the cost to heat and cool new homes, and increases the need for costly retrofits.

While the adoption of updated energy codes often results in higher upfront construction costs, the newer codes also generate long-term energy reductions, lower ongoing utility bills, and air quality improvements. Pacific Northwest National Laboratory is currently undertaking two studies to determine the Utah-specific cost effectiveness of adopting the updated energy codes in residential and commercial buildings, and the results are expected soon.

In addition to important air quality benefits, energy efficient new homes and buildings help keeps Utah's energy rates low. Growing electricity demand from new buildings in Utah is increasing the need to raise utility rates to build transmission lines and other utility infrastructure, which is paid for through higher utility rates for homeowners and businesses. Building homes to current energy conservation standards keeps energy costs down for everyone.

Furthermore, adopting the 2015 IECC will lower Utah households' energy bills and avoid the need to make expensive fixes to home energy systems that can cost up to \$5,000 and more. In fact, analysis by the Building Codes Assistance Project shows that adopting the 2015 IECC for new homes in Utah will keep \$1.07 billion in the pockets of Utah homeowners between 2017 and 2040.

The Utah Legislature relies on your expertise and review to inform the Uniform Building Code Commission about which building and energy codes best serve the public interest. We respectfully request that you give due consideration of the long-term air quality and financial impacts to Utah families and businesses during your review of the 2015 IECC.

Sincerely,

Patrice Arent  
Utah House of Representatives

Dr. Robert Gillies  
State Climatologist

Steve Sands  
Rio Tinto Kennecott

Mayor Ralph Becker  
Salt Lake City

Ingrid Griffiee  
Utah Moms for Clean Air

Lowry Snow  
Utah House of Representatives

David Brems  
GSBS Architects

Roger P. Jackson  
FFKR Architects

Kathy Van Dame  
Wasatch Clean Air Coalition

Lonnie Bullard  
Jacobsen Construction

Linda Johnson  
Citizen

Sarah Wright  
Utah Clean Energy

Rebecca Chavez-Houck  
Utah House of Representatives

Mayor Ben McAdams  
Salt Lake County

Ryan Evans  
Salt Lake Chamber

Edward Redd  
Utah House of Representatives

# Impacts of Adopting the 2015 IECC in Utah

This fact sheet provides the potential impacts from updating Utah's current residential energy code to the 2015 International Energy Conservation Code (IECC).<sup>1</sup>

The benefits of new homes in Utah being built to the 2015 IECC are significant. If homes built in 2017 met the 2015 IECC then by 2040 Utah would...



Protect families from losing an estimated \$95 million annually and \$1.07 billion cumulatively in energy costs<sup>2</sup>



Reduce energy demand by about 7.57 trillion Btu of energy annually including 3.51 trillion Btu in electricity, 3.22 trillion Btu in natural gas, and 0.83 trillion Btu liquefied petroleum gas<sup>3</sup>

- Lower the projected energy demand of Utah's building sector in 2040 by 4.1%<sup>4</sup>



Reduce cumulative CO<sub>2</sub> emissions by an estimated 5.06 million metric tons<sup>5</sup>

- Annual CO<sub>2</sub> emission reductions equivalent to CO<sub>2</sub> emissions from 36,496 homes' energy use and the greenhouse gas emissions from 84,211 passenger vehicles<sup>6</sup>

## Improve Utah's Housing Stock and Avoid Costly Retrofits

Buildings that meet or exceed the 2015 IECC are more durable, comfortable, have fewer drafts, and protect homeowners and tenants from high energy costs.

Ensuring that homes are built to current energy efficiency standards is more cost-effective than retrofitting the homes later or providing homeowners with subsidies to reduce high energy costs. Over \$20 million in public funding is spent annually to assist low-income Utah households with energy bills.<sup>7</sup> In 2013, Utah investor-owned utilities spent over \$36 million in incentive programs to upgrade the energy efficiency of homes in Utah.<sup>8,9</sup> Over time, strong energy codes reduce the need for families to rely on assistance to afford energy for their homes.

## Consumers Come Out Ahead

Homes built to updated energy codes typically result in monthly energy cost savings that exceed increases in the down payment and monthly mortgage,<sup>10</sup> providing a positive cash flow for consumers.

Lower monthly energy bills also:

- Improve the standard of living for families
- Strengthen local economies across Utah by providing consumers with more disposable income



# An analysis of the impact from adopting the 2015 IECC as the residential energy code in Utah



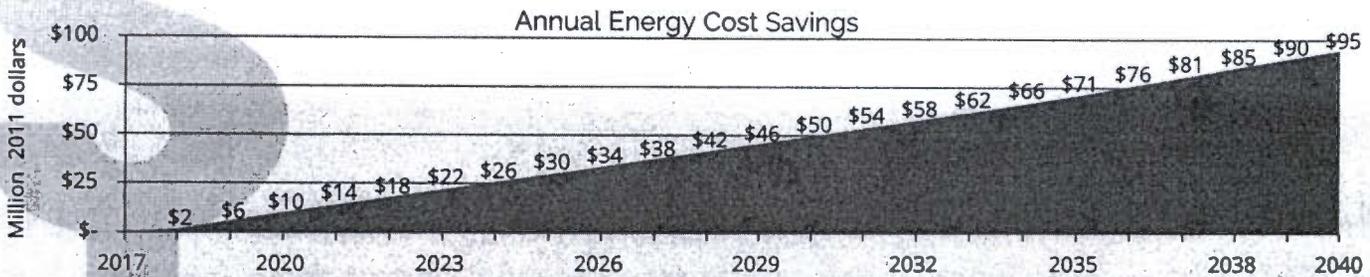
This analysis provides the estimated statewide impact in 2040 from updating Utah's residential energy code by the start of 2017 to the 2015 International Energy Conservation Code (IECC).<sup>1</sup>

The 2015 IECC prescribes minimum energy performance requirements that will protect Utahns from high energy costs, lower the state's energy demand, and reduce CO<sub>2</sub> emissions.

## FINANCIAL IMPACT IN 2040

### Families are protected from losing \$95 million in energy costs

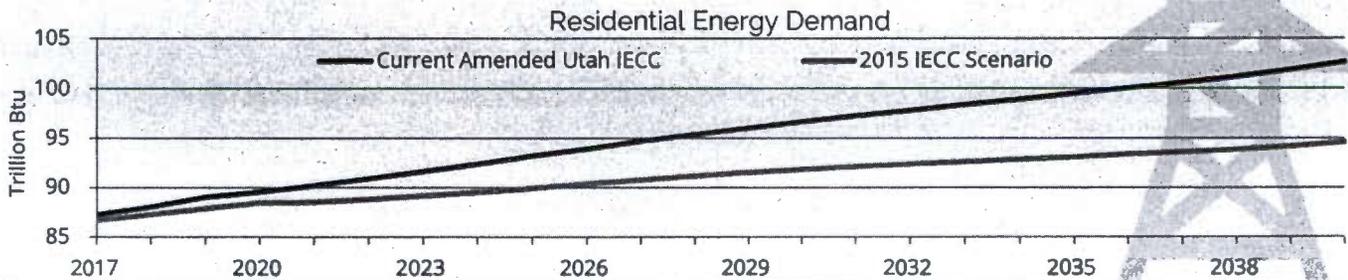
Updating Utah's residential energy code to the 2015 IECC will protect owners and tenants of residential homes from losing \$95 million in energy costs in 2040. The cumulative savings from 2017-2040 are \$1.07 billion.<sup>2</sup>



## ENERGY DEMAND IMPACT IN 2040

### Lower the projected residential energy demand by 7.3% in 2040

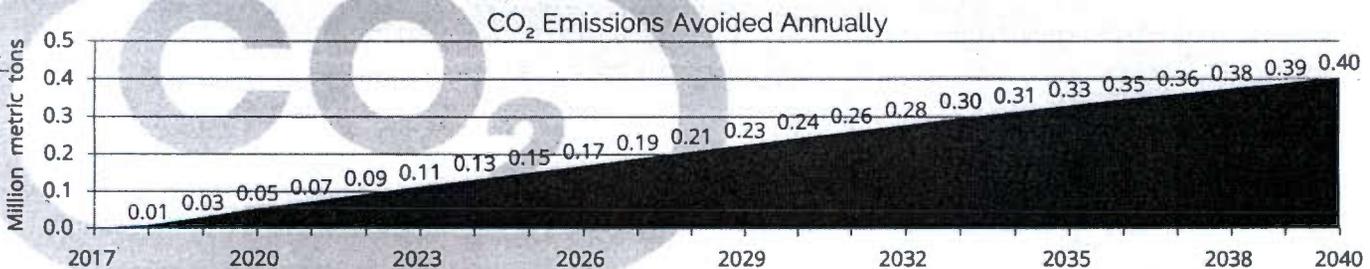
Utah avoids using 7.57 trillion Btu in 2040 that includes 3.22 trillion Btu in natural gas, 3.51 trillion Btu in electricity, and 0.83 trillion Btu in liquefied petroleum gas.<sup>2,3,4</sup>



## CO<sub>2</sub> EMISSIONS IMPACT IN 2040

### 0.40 million metric tons of CO<sub>2</sub> emissions are avoided

CO<sub>2</sub> emission reduction is equivalent to the current average annual greenhouse gas emissions from 85,033 passenger vehicles or the average CO<sub>2</sub> emissions from 36,853 homes' annual energy use.<sup>5</sup> Cumulative CO<sub>2</sub> emissions avoided from 2017-2040 are 5.06 million metric tons.



## ADDITIONAL BENEFITS

**Lower demand for public assistance and utility incentive programs**

Over \$20 million in public funding is spent annually to assist low-income Utah households with energy bills.<sup>6</sup> In 2013, Utah investor-owned utilities spent over \$36 million in incentive programs to upgrade the energy efficiency of homes in Utah.<sup>7, 8</sup> Ensuring that homes are built to the 2015 IECC is more cost-effective than reducing the burden of high energy costs through financial assistance or energy efficiency retrofits.

Homes built to updated energy codes typically result in monthly energy savings that exceed increased mortgage payments resulting from the cost of the efficiency improvements.<sup>9</sup> Over time, strong energy codes reduce the need for families to rely on assistance to afford energy for their homes.

1. This analysis assumes that Utah's current residential energy code is 10.3% more efficient than the 2006 IECC. The current Utah residential energy code includes provisions from the 2006, 2009, and 2012 IECC. The stringency of the current residential energy code is based on findings from "Energy Savings Analysis of HB 202 as compared to 2006 IECC" prepared by the Southwest Energy Efficiency Project (2013).

2. Financial savings and energy demand estimates are calculated from the Building Code Assistance Project (BCAP) Code Calculator. The calculator is a tool that estimates energy cost (in 2011 dollars) and energy demand reductions from state adoption and compliance with residential and commercial energy codes. The calculator compares a model code scenario to a baseline scenario based on the Annual Energy Outlook (AEO) reference case published by the U.S. Energy Information Administration. Energy costs are based on AEO 2013.

This analysis assumes an 85% compliance rate across code cycles. Details on the methodology behind BCAP's code calculator are available in the BCAP Code Calculator Primer at: <http://energycodesocean.org/resource/bcap-codes-savings-estimator-primer>

3. The 0.83 trillion Btu savings represent savings from all petroleum products, including distillate fuel oil and kerosene in addition to liquefied petroleum gas.

4. All figures for energy savings refer to source energy. Source energy is the raw fuel required to operate the building, including all transmission, delivery, and production losses in getting the energy from the power plant to the building.

5. U.S. Environmental Protection Agency (EPA). "Greenhouse Gas Equivalencies Calculator." <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>.

6. U.S. Department of Health and Human Services. LIHEAP Clearinghouse. The federal Low-Income Home Energy Assistance Program (LIHEAP) is a program that pays a portion of utility bills for low-income households. Data cited includes tribal awards. <http://www.liheapch.acf.hhs.gov/Funding/funding.htm>

7. Questar Gas Thermwise Weatherization Program, \$15.3 million. <http://www.psc.utah.gov/utilities/gas/12docs/1205714/249531QGC%27s%20Report%20on%20DSM%20Expenditures%20and%20Decatherm%20Savings%20to%20Date%2012-24-2013.pdf>

8. Rocky Mountain Power, Home Energy Savings Program, \$20.8 million. [http://www.pacificorp.com/content/dam/pacificorp/doc/Energy\\_Sources/Demand\\_Side\\_Management/2014/2013-UT-Annual-Report-FINAL-Report-051614.pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Demand_Side_Management/2014/2013-UT-Annual-Report-FINAL-Report-051614.pdf)

9. Assuming a standard 15-year or 30-year mortgage, where a buyer's 20% mortgage down payment is increased incrementally due to the increased home price resulting from building to the energy code.



# An analysis of the impact from adopting the 2015 IECC as the residential energy code in Utah



The Building Codes Assistance Project (BCAP) Code Calculator estimates the impact of adopting new energy codes or improving compliance with existing energy codes in residential and commercial buildings. This fact sheet provides a background on the calculation method used by the Code Calculator.

The estimates rely on federal data sets primarily from the U.S. Energy Information Administration Annual Energy Outlook, with supporting data from the U.S. Census Bureau on housing construction, the U.S. Environmental Protection Agency on emission equivalencies, and the National Oceanic and Atmospheric Administration (NOAA) on state-specific weather data.

## The code calculator follows five primary steps to estimate impacts from code changes:

### **Step 1. Estimate current energy use in residential buildings**

The calculator estimates state-level residential building energy use based on the current residential stock in the state divided by the state's residential energy use. The calculator only considers the energy use in its estimate from sources covered by energy code requirements. These end-use energy sources are space heating, space cooling, water heating, and lighting equipment.

The data to perform this calculation is provided by the Annual Energy Outlook and the Residential Energy Consumption Survey. Some states in the Residential Energy Consumption Survey are grouped into regions. For states where only regional energy data is available, BCAP bases the state energy use on the proportion of the population in the state against the population in the region.

### **Step 2. Estimate future energy use in residential buildings without code improvements**

The calculator adds the state's estimated energy use from space heating, space cooling, water heating, and lighting through 2040 to the estimate calculated in step 1 (the state's current residential energy use).

The Annual Energy Outlook and the Residential Energy Consumption Survey provide estimated building shell and equipment efficiency improvements that are expected from new technology and standards through 2040.

The Annual Energy Outlook estimates that the building shell becomes more energy efficient over time even before additional code improvements. These surveys also take into account new home builds and demolitions based on data from the U.S. Census Bureau. Data on heating and cooling degree days from NOAA are factored into state level estimates.

Step 1 and step 2 provide the baseline reference case from which to compare a new code.

### **Step 3. Estimate future energy use in residential buildings with code improvements**

The calculator creates a second case scenario where the efficiency of the building shell and lighting is improved from the current code to the new code. Equipment efficiencies covered by federal standards are held at the standard Annual Energy Outlook projections.

### **Step 4. Compare the baseline reference case to the new code scenario**

The difference between the baseline reference case, primarily informed by the Annual Energy Outlook, and the new code scenario are compared. The impact estimates are provided in the state fact sheet.

### **Step 5. Prepare equivalency estimates**

The calculator provides emission savings estimates from a range of sources based on the differences in the reference case and the improved scenario.

The equivalencies provided are based on data from the U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator. These results provide a practical comparison from the savings estimated to common energy consuming activities.