

AGENDA

UNIFORM BUILDING CODE COMMISSION  
ELECTRICAL ADVISORY COMMITTEE

April 14, 2022 3:00

MEETING

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

Anchor Location  
Room 402  
Heber M Wells Building  
160 E 300 S  
Salt Lake City UT

Join with Google Meet  
[meet.google.com/qtm-onnw-jhk](https://meet.google.com/qtm-onnw-jhk)

Join by phone  
(US) +1 617-675-4444 PIN: 886 978 816 3192#

Roll call

1. Approve the minutes from the March 10, 2022 meeting
2. Review 15A-3-201
3. Review of the electrical portion of the 2021 IRC
4. Review proposed amendments to 2021 IRC  
E3601.8  
E3606.5, E3606.5.1, E3606.5.2, E3606.5.3  
E3900  
E3901.4.2  
E3902.1 through E3902.12  
E3902.3

Next Scheduled Meeting: as needed

Please call Sharon at 801-530-6163 or email [ssmalley@utah.gov](mailto:ssmalley@utah.gov) if you do not plan on attending this 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, Phone 530-6628 or toll-free in Utah only 866-275-3675.

MINUTES

UTAH  
UNIFORM BUILDING CODE COMMISSION  
ELECTRICAL ADVISORY COMMITTEE

March 10, 2022

Electronic Meeting

Convened: 3:06

Adjourned: 5:01

STAFF:

Stephen Duncombe, Bureau Manager  
Sharon Smalley, Board Secretary

ELECTRICAL ADVISORY COMMITTEE MEMBERS

Jason VanAusdal (excused)	Rhett Butler
Joseph Taft	Steve Woodman (excused)
David Winger (excused)	Willie Chidester
Bryan Romney	Art Anderson, Commission Liaison

VISITORS:

Karl Mott	Ross Ford
Ted Black	Helena Baer

MINUTES

A motion was made by Rhett Butler to approve the minutes from the December 9, 2021 meeting as corrected. The motion was seconded by Art Anderson and passed unanimously.

REVIEW OF THE ELECTRICAL  
PORTION OF THE 2021 IRC

Karl Mott spoke to the committee in connection with the concerns about the differences in the 2020 NEC and the fact that there were no amendments proposed for the 2021 IRC for those items. Mr. Mott put together a spreadsheet showing his concerns. The committee started their discussion on these concerns. Ross Ford spoke to the committee in connection with the proposed amendments.

It was agreed to table the discussion on Section 3900 until the April meeting. The committee reviewed the amendments that have been proposed along with the spreadsheet.

Following the discussion on Section E3601.8, the

REVIEW PROPOSED AMEND-  
MENTS TO 2021 IRC

E3601.8

E3606.5, E3606.5.1, E3606.5.2

E3606.5.3

E3900

E3902.1 THROUGH E302.12

E3902.3

committee agreed to table the decision until further documentation can be gathered.

The committee agreed to research further why the requirements for serge protection has been added. It was suggested that someone reach out to NFPA and UL to see if there is any technical data available on safety and why it is important to have the protection required.

The decision on Section E3905.8 was tabled until the April meeting.

The decision on Section E3601.8 was tabled until more input can be received from the Fire Marshal's office.

Bryan Romney pointed out that the state amendment for Section E3901.4.5 may need to be renumbered.

A motion was made by Bryan Romney to approve the proposed amendment for Sections E3901.4.5, E3902.16 and E3902.17. The motion was seconded by Willie Chidester and passed unanimously.

The remaining items will be discussed at the April meeting.

The meeting adjourned at 5:01.

UTAH DEPARTMENT OF COMMERCE  
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING  
160 East 300 South Salt Lake City UT 84111  
PO Box 146741 Salt Lake City UT 84114-6741  
E-mail: b8@utah.gov  
Web: www.dopl.utah.gov

REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:02/10/2022
Street Address:38 W 13775 S suite 120	
City, State, Zip Draper Utah 84020	
Contact Person: Ross Ford	Phone:801-352-8266
Code to be Amended: 2021 IRC (Include edition)	
Section: E3601.8	
Section Emergency Disconnects	

AMENDMENT:
Strike E3601.8

<b>Purpose of or Reason for the amendment:</b> <p>The intent of this change is to allow firefighters to quickly shut off power from the electrical service before entering a house to fight a fire. In Utah this is already common practice. This requirement is not necessary.</p> <p>It is also important to note that activating the disconnect will not shut off all power in every case. Some systems, such as photovoltaic and backup generators, will still provide power even after power from the electrical utility is disconnected.</p>	
<b>Cost or Savings Impact of Amendment:</b> <p>This would have a cost savings of \$86 per home</p>	
<b>Compliance Costs for Affected Persons (APerson@ means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):</b> <p>This amendment will have no cost impact for compliance</p>	
<b>Signature:</b>	<b>Date:</b>

**For Division Use:**

<b>Date Received:</b>	
<b>Committee Action:</b> Approved                      Δ Denied <i>X 11-14-11</i> Approved with revisions Referred to: Tabled	<b>UBC Commission Decision for Hearing:</b> Approved for hearing    Δ Denied Approved with revisions Referred to: Tabled
<b>Date Filed:</b>	<b>Public Hearing Date:</b>
<b>UBC Commission Decision for Adoption:</b> Approved                      Δ Denied Approved with revisions Referred to: Tabled	<b>Effective Date:</b>

UTAH DEPARTMENT OF COMMERCE  
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING  
160 East 300 South Salt Lake City UT 84111  
PO Box 146741 Salt Lake City UT 84114-6741  
E-mail: b8@utah.gov  
Web: www.dopl.utah.gov

REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:02/10/2022
Street Address:38 W 13775 S suite 120	
City, State, Zip Draper Utah 84020	
Contact Person: Ross Ford	Phone:801-352-8266
Code to be Amended: 2021 IRC (Include edition)	
Section: E3606.5, E3606.5.1,E3606.5.2,E3606.5.3	
Section Serge protection	

AMENDMENT:
Strike E3606.5, E3606.5.1, E3606.5.2, E3606.5.3

Purpose of or Reason for the amendment:

The code-making panel did not provide adequate substantiation to clearly identify a risk to equipment or safety concern to warrant this new requirement. Surge protection is currently permitted by the code and can provide a value to the end user, but it should remain up to the consumer as to whether the benefit is worth the investment. There are also potential issues with mandating currently available surge-protection products in all cases. The new language does not specify which conductors are to be protected or what the minimum short circuit current rating, the minimum nominal discharge current rating or the voltage protection rating should be. Market pressures will dictate that the lowest level of protection is installed in most cases, severely limiting the effectiveness of the devices. There is also no guarantee that the devices remain in service, further negating any possible advantages of this new mandate. During the code development process, the code making panel rejected several public comments to expand the surge-protection requirement to all occupancies and multiple levels of protection because they lacked substantiation. Yet the committee did not provide technical data in their statement showing a problem existed that required this change.

Cost or Savings Impact of Amendment:

This would have a cost savings of \$246 per home

Compliance Costs for Affected Persons (APerson@ means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):

This amendment will have no cost impact for compliance

Signature:

Date:

**For Division Use:**

Date Received:

**Committee Action:**

Approved  *W. J. [unclear]*  
Approved with revisions   
Referred to: *3/2/04*  
Tabled

**UBC Commission Decision for Hearing:**

Approved for hearing   Denied  
Approved with revisions   
Referred to:  
Tabled

Date Filed:

Public Hearing Date:

**UBC Commission Decision for Adoption:**

Approved   Denied  
Approved with revisions   
Referred to:

Effective Date:

Tabled	
--------	--

UTAH DEPARTMENT OF COMMERCE  
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING  
160 East 300 South Salt Lake City UT 84111  
PO Box 146741 Salt Lake City UT 84114-6741  
E-mail: b8@utah.gov  
Web: www.dopl.utah.gov

REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:02/10/2022
Street Address:38 W 13775 S suite 120	
City, State, Zip Draper Utah 84020	
Contact Person: Ross Ford	Phone:801-352-8266
Code to be Amended: 2021 IRC (Include edition)	
Section: E3900	
Section Title: Ground Fault and Arc Fault Circuit interruptions	

AMENDMENT:

**15A-3-206 Amendments to Chapters 37,39, and 44 and appendix F of IRC**

15A-3-206(3) In IRC, section ~~E3901.4.5~~ E3901.4.3

15A-3-206(5) In IRC, section ~~E3902.16~~ E3902.17

15A-3-206(6) In section ~~E3902.17~~ E3902.18

**Purpose of or Reason for the amendment:**

The 2021 IRC numbers are different from the 2015. This changes the numbering to match the title.

**Cost or Savings Impact of Amendment:**

No change in cost. Just renumbering existing amendments

**Compliance Costs for Affected Persons** (APerson<sup>o</sup> means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):

This amendment will have no cost impact for compliance

Signature:

Date:

**For Division Use:**

Date Received:

**Committee Action:**

Approved ~~with revisions~~ Δ Denied  
Approved with revisions  
Referred to:  
Tabled



**UBC Commission Decision for Hearing:**

Approved for hearing Δ Denied  
Approved with revisions  
Referred to:  
Tabled

Date Filed:

Public Hearing Date:

**UBC Commission Decision for Adoption:**

Approved Δ Denied  
Approved with revisions  
Referred to:  
Tabled

Effective Date:

UTAH DEPARTMENT OF COMMERCE  
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING  
160 East 300 South Salt Lake City UT 84111  
PO Box 146741 Salt Lake City UT 84114-6741  
E-mail: b8@utah.gov  
Web: www.dopl.utah.gov

REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:2/09/2022
Street Address:38 W 13775 S suite 120	
City, State, Zip Draper Utah 84020	
Contact Person: Ross Ford	Phone:801-352-8266
Code to be Amended: 2021 IRC (Include edition)	
Section: E3902.1 through E3902.12	
Section Title: Ground-Fault and Arc Fault circuit interrupter protection	

AMENDMENT:

**E3902.1 Bathroom Receptacles.** 125-volt single phase 15 and 20 ampere ~~Through 250-volt~~ receptacles installed in bathrooms and supplied by single phase branch circuits rated 150 volts or less to ground shall have ground fault circuit interrupter protection for personnel.

(Make the same changes to the first sentence of E3902.2, E3902.4, E3902.5, E3902.6, E3902.7, E3902.8, E3902.9, E3902.10, E3902.11, E3902.12,)

**Purpose of or Reason for the amendment:**

The unfortunate event used as the sole substantiation for the change involved an older stove with both an appliance manufacturing error as well as an installation error. This change goes beyond requiring belt and suspenders safety provisions. Those were already in place, and it took both to fail for the incident to occur.

The proposed requirement of GFCI protection for all 250-volt receptacles is too broad and not supported by the committee's substantiation. According to the NFPA article used to support the change, the appliance in question was "an older installation, one predating today's requirement to install an equipment grounding conductor in the branch circuit to the range". It sounds like the tragedy was only possible with older wiring. This is another example that shows new construction and updated electrical systems do not constitute the same dangers as those in older homes.

The committee contends that 250-volt receptacles present similar hazards as 125-volt convenience receptacles and this is not true. 250-volt receptacles are installed behind the range or dryer without being readily accessible to the consumer. 250-volt appliances are plugged in and left for the operation of the appliance, but 125-volt receptacles are generally accessible to the consumer. If the consumer chose to, they could use a convenience receptacle for extension cords or other appliance use, whereas a 250-volt receptacle is specific to that appliance.

**Cost or Savings Impact of Amendment:**

This amendment will reduce costs by around \$300 per home.

**Compliance Costs for Affected Persons** (A Person<sup>o</sup> means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):

This amendment will have no cost impact for compliance

Signature:

Date:

**For Division Use:**

Date Received:

**Committee Action:**

Approved                      Δ Denied  
Approved with revisions

**UBC Commission Decision for Hearing:**

Approved for hearing    Δ Denied  
Approved with revisions

Referred to: Tabled	Referred to: Tabled
Date Filed:	Public Hearing Date:
<b>UBC Commission Decision for Adoption:</b> Approved                    Δ Denied Approved with revisions Referred to: Tabled	Effective Date:

UTAH DEPARTMENT OF COMMERCE  
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING  
160 East 300 South Salt Lake City UT 84111  
PO Box 146741 Salt Lake City UT 84114-6741  
E-mail: b8@utah.gov  
Web: www.dopl.utah.gov

REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:03/3/2022
Street Address:38 W 13775 S suite 120	
City, State, Zip Draper Utah 84020	
Contact Person: Ross Ford	Phone:801-352-8266
Code to be Amended: 2021 IRC (Include edition)	
Section: E3901.4.2	
Section Island and peninsular countertops and workspaces	

AMENDMENT:

Strike E3901.4.2 (1) and replace with,  
E3901.4.2 **Island and peninsular countertops and work spaces.** Receptacle outlets shall be installed in accordance with the following:

- 1 At least one receptacle outlet shall be installed in each island countertop space

**Purpose of or Reason for the amendment:**

One receptacle on an island eliminates the need for extension cords crossing walkways. This amendment provides safe power to the island while preserving the ability of the homeowner to place the receptacle in the correct spot for there needs. It also meets the intent of the code to set a minimum safe construction practices.

**Cost or Savings Impact of Amendment:**

Cost savings depend on if a home has a bar and its size. For homes with large bars the savings could be around \$100 per home.

**Compliance Costs for Affected Persons (APerson@ means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):**

This amendment will reduce cost for inspectors. The time required to measure counter tops, figure the square footage and calculate the number and check placement of receptacles will be eliminated.

Signature:

Date:

**For Division Use:**

Date Received:

**Committee Action:**

Approved                      Δ Denied  
Approved with revisions *7-14-22*  
Referred to:  
Tabled

**UBC Commission Decision for Hearing:**

Approved for hearing    Δ Denied  
Approved with revisions  
Referred to:  
Tabled

Date Filed:

Public Hearing Date:

**UBC Commission Decision for Adoption:**

Approved                      Δ Denied  
Approved with revisions  
Referred to:  
Tabled

Effective Date:

UTAH DEPARTMENT OF COMMERCE  
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING  
160 East 300 South Salt Lake City UT 84111  
PO Box 146741 Salt Lake City UT 84114-6741  
E-mail: b8@utah.gov  
Web: www.dopl.utah.gov

REQUEST FOR CODE AMENDMENT

Requesting Agency/Person: Home Builders Association of Utah	Date:2/09/2022
Street Address:38 W 13775 S suite 120	
City, State, Zip Draper Utah 84020	
Contact Person: Ross Ford	Phone:801-352-8266
Code to be Amended: 2021 IRC (Include edition)	
Section: E3902.3	
Section Title: Ground-Fault and Arc Fault circuit interrupter protection	

AMENDMENT:

**E3902.3 Outdoor Receptacles.** 125-volt single phase 15 and 20 ampere ~~Through 250-volt~~ receptacles installed outdoors and supplied by single phase branch circuits rated 150 volts or less to ground shall have ground fault circuit interrupter protection for personnel.

Purpose of or Reason for the amendment:

GFCIs are shown to be effective where a corded product is plugged into a standard "convenience" receptacle in a wet or damp location. However, this requirement is for condenser units, which are hardwired. Data was not provided to supports expanding the use of GFCI protection on these circuits. The event used as substantiation was a result of an unqualified individual performing an electrical installation they never should have attempted. The NEC should not mandate GFCI protection for all outdoor outlets based on very specific unfortunate circumstances. This requirement is extremely broad and will result in many unintended consequences. For example, it has not been determined if all A/C condenser units will operate on a GFCI protected circuit as sufficient testing has not been conducted. If the condenser unit is affected by high humidity and trips the GFCI, it could result in unhealthy conditions and property damage inside the home due to heat, humidity and mold growth, especially where the home is unoccupied for an extended period. There is also the potential for unwanted tripping and compatibility issues with heat pumps. Branch circuit extensions or modifications would require the addition of GFCI protection for old condenser units, and it is not known whether the existing equipment is compatible with GFCI This requirement also applies to hardwired connections for effluent pumps and other types of lift station pumps with outdoor connections.

Cost or Savings Impact of Amendment:

This amendment will reduce costs by around \$136 per home.

Compliance Costs for Affected Persons (A Person<sup>o</sup> means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency.) (You must break out the impact cost to State Budget, Local Government and you must state aggregate cost to other persons {cost per person times number of persons affected}):

This amendment will have no cost impact for compliance

Signature:

Date:

**For Division Use:**

Date Received:	
<b>Committee Action:</b> <i>adoption</i> Approved                      Δ Denied Approved with revisions Referred to: Tabled	<b>UBC Commission Decision for Hearing:</b> Approved for hearing    Δ Denied Approved with revisions Referred to: Tabled
Date Filed:	Public Hearing Date:
<b>UBC Commission Decision for Adoption:</b>	

Approved Approved with revisions Referred to: Tabled	$\Delta$ Denied  Effective Date:
---	--