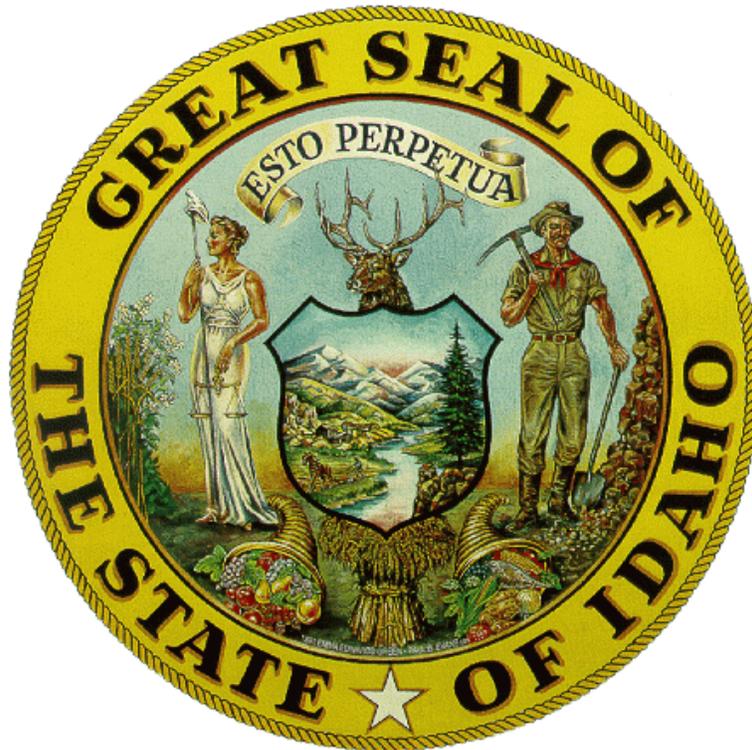


DIVISION OF BUILDING SAFETY

IDAHO ELECTRICAL BOARD  
VIDEOCONFERENCE MEETING

JANUARY 6, 2011



# IDAHO ELECTRICAL BOARD

## Agenda Item No. 01

## Agenda

**OBJECTIVE:** To approve the January 6, 2011 Idaho Electrical Board Meeting Agenda.

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**ACTION:** Consent

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**BACKGROUND:**

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**PROCEDURAL HISTORY:**

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**ATTACHMENTS:** Copy of the January 6, 2011 Idaho Electrical Board "tentative" Agenda

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**TENTATIVE AGENDA**

**NOTICE OF PUBLIC MEETING**

***IDAHO ELECTRICAL BOARD  
VIDEOCONFERENCE MEETING***

**Division of Building Safety  
1090 East Watertower Street, Meridian, Idaho  
1250 Ironwood Drive, Suite 220, Coeur d'Alene, Idaho  
2055 Garrett Way, Building 2, Suite 7, Pocatello, Idaho  
dbs.idaho.gov – (208) 332-7137**

***Thursday, January 6, 2011  
9:00 a.m. – 1:00 p.m. (MT)***

*(Note: Meeting Commences at 8:00 a.m. PT)*

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**9 a.m. CALL TO ORDER** – Tom Brown, Chairman

- Roll Call & Introductions
- Open Forum

**CONSENT AGENDA**

1. Approval of January 6, 2011 Agenda
2. Approval of October 21, 2010 Board Meeting Minutes

**INFORMATIONAL AGENDA**

3. Schooling Update – Irene Vogel
  - a. State Energy Sector Partnership Grant
4. Board Positions
  - a. Appointments – Tom Brown
  - b. Inspector Representative – Bret Stoddard
5. Code Issues – Al Caine
  - a. SER Cables
  - b. AFCI
  - c. Swimming Pools
  - d. 2011 NEC
6. New Notice of Violation (NOV) Process – Al Caine

7. Electrical Program Manager Report – Al Caine

8. Operational Report – Steve Keys

**12 p.m. LUNCH BREAK** *(If needed)*

9. Administrator Report

a. CAS Update – C. Kelly Pearce and Janice Foster

b. Financial Report – C. Kelly Pearce and Kirk Weiskircher

- Definition of “Professional Services”

c. Administrator – C. Kelly Pearce

**NEW/OLD BUSINESS**

**EXECUTIVE SESSION** *(If needed)*

**1 p.m. ADJOURN**

*All times, other than beginning, are approximate and are scheduled according to Mountain Time (MT), unless otherwise noted. Agenda items may shift depending on Board preference. 12/09/10r*

# IDAHO ELECTRICAL BOARD

**Agenda Item No. 02**

**Minutes**

**OBJECTIVE:** To approve the October 21, 2010 Idaho Electrical Board Meeting Minutes.

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**ACTION:** Consent

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**BACKGROUND:**

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**PROCEDURAL HISTORY:**

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**ATTACHMENTS:** Copy of the October 21, 2010 Idaho Electrical Board “draft” Minutes

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# IDAHO ELECTRICAL BOARD VIDEOCONFERENCE MEETING

Thursday – October 21, 2010 – 9:00 a.m. (MDT)

Division of Building Safety  
1090 East Watertower Street, Meridian, Idaho  
1250 Ironwood Drive, Suite 220, Coeur d'Alene, Idaho  
2055 Garrett Way, Building 2, Suite 7, Pocatello, Idaho

## \*DRAFT MINUTES OF THE OCTOBER 21, 2010 MEETING

*NOTE: The following report is not intended to be a verbatim transcript of the discussions at the meeting, but is intended to record the significant features of those discussions.*

Chairman Tom Brown called the meeting to order at 9:01 a.m. (MDT).

### Board Members Present:

Tom Brown, Chairman  
Bob Scott, Vice Chairman  
Jeff Wheeler  
Al Frieze  
Allan Perman  
Tim Phillips  
Troy Mortensen

### DBS Staff Members Present:

C. Kelly Pearce, Administrator  
Steve Keys, Deputy Administrator, Operations  
Janice Foster, Deputy Administrator, Administration  
Patrick Grace, Deputy Attorney General  
Al Caine, Electrical Program Manager  
Kirk Weiskircher, Financial Specialist, Principal  
Chris Jensen, Regional Manager, Eastern Idaho  
Tom Loudin, Electrical Supervisor, Northern Idaho  
Renee Bryant, Administrative Assistant 2/Board Secretary

### Board Members Absent:

Kreg Davis  
Mark LaBolle

Kelly Pearce acknowledged Al Caine in his new position as Electrical Program Manager.

### ◆ Open Forum

SER Cables – With the adoption of the 2011 National Electrical Code (NEC), Kevin Vogel with Crescent Electric Supply asked the Board to revisit the use and passing of SER cables; specifically the use of 4-0 SER aluminum on a 200 amp breaker.

Tom Brown asked Al Caine to research Mr. Vogel's concern and present his findings at the January 2011 Board meeting when discussing the highlights and potential problems of the 2011 Code.

**ACTION:** Al Caine to address the topic "SER Cables" at the January 2011 Board meeting.

Board Position-Inspector Representative – Bret Stoddard, City of Rexburg Electrical/Building Inspector, asked the Board to consider creating a new position on the Board to represent electrical inspectors.

**ACTION:** The topic "Board Position-Inspector Representative" to be added to the agenda and discussed at the January 2011 Board meeting.

Renewal Fee for Inactive Electrical Contractor License – Bret Stoddard questioned the Division’s costs to maintain active versus inactive electrical contractor licenses, and if the DBS would consider a lesser annual renewal fee for inactive licenses.

There is no difference in cost for the Division to maintain licensing files. The license fees are set in accordance to Idaho Code § 54-1014, which the Division is required to adhere to.

Electrical contractors may convert their inactive licenses to an active status by paying a processing fee and providing proof of the required liability insurance and applicable worker’s compensation insurance.

Outside Wireman – Bob Bodell, IBEW, asked for clarification on the electrical licensing requirements to work on wind-generated equipment in Idaho.

Individuals not licensed as an electrical contractor, electrical journeyman and/or electrical apprentice performing the following installations in excess of 600 volts are required to obtain and maintain a specialty electrical contractor, specialty journeyman electrician and/or specialty electrical trainee license.

- Overhead distribution and transmission lines
- Underground distribution and transmission lines
- Substation and switchyard construction

As part of the licensure requirement, an individual would have to provide documentation of completion of an electrical lineman apprenticeship or similar program approved by the U.S. Department of Labor, Office of Apprenticeship.

The electrical journeyman/apprentice ratios only apply if an electrical contractor uses a regular electrical journeyman and/or apprentice.

◆ **Approval of the October 21, 2010 Agenda**

To ensure the meeting stays on course, Tom Brown asked the Board to allow him discretion with the time and order of the items on the Agenda.

**MOTION:** Tim Phillips made a motion to approve the Agenda as listed in the packet with the understanding Chairman has the flexibility to rearrange items as needed. Al Frieze seconded. All in favor, motion carried.

◆ **Approval of the July 22, 2010 Board Meeting Minutes**

**MOTION:** Jeff Wheeler made a motion to approve the Minutes as written. Bob Scott seconded. All in favor, motion carried.

◆ **Notice of Violation**

Audio Innovations/TJ’s Electric – NOV ELE1007-0075 – Jess Goitandia represented Audio Innovations/TJ’s Electric, Electrical Program Manager Al Caine represented the Division of Building Safety, and Deputy Attorney General Patrick Grace was the facilitator. Mr. Grace provided the nature of the violation for the hearing. All parties provided testimony and argument on NOV ELE1007-0075, violation of Idaho Code Section 54-1002(1) “License Essential to Engage in Business – Licensure Authority Exclusive to the State”.

Mr. Goitiandia requested the verbiage stating what constituted the violation be mailed or e-mailed to him.

**ACTION:** Al Caine to provide a copy of IDAPA 07.01.03.015.03(b) “Electrical Contracting Work Defined” to Mr. Goitiandia.

**MOTION:** Bob Scott made a motion to uphold the imposed fine. Tim Phillips seconded. All in favor, motion carried.

**ACTION:** Patrick Grace will create a Final Written Order for Chairman Brown’s signature and provide a signed copy to Jess Goitiandia.

Teg S. Sidhu – NOV ELE1008-0001 – Teg S. Sidhu represented himself, Electrical Program Manager Al Caine represented the Division of Building Safety, and Deputy Attorney General Patrick Grace was the facilitator. Mr. Grace provided the nature of the violation for the hearing. All parties provided testimony and argument on NOV ELE1008-0001, violation of Idaho Code Section 54-1002 “License Essential to Engage in Business – Licensure Authority Exclusive to the State” and IDAPA 07.01.11.011.02 “Civil Penalties – Employees”.

**MOTION:** Bob Scott made a motion to uphold the penalty. Motion died for lack of a second.

**MOTION:** Tim Mortensen made a motion to dismiss the penalty and violation. Motion died for lack of a second.

**MOTION:** Allan Perman made a motion to dismiss the fine and have the DBS issue a warning letter. Troy Mortensen seconded. The vote was called for. Jeff Wheeler, Al Frieze, Bob Scott, and Tim Phillips voted nay. Allan Perman and Troy Mortensen voted aye. With four nays the motion died.

**MOTION:** Tim Phillips made a motion to reduce the fine to one hundred dollars (\$100). Bob Scott seconded. All in favor, motion carried.

**ACTION:** Patrick Grace will create a Final Written Order for Chairman Brown’s signature and provide a signed copy to Mr. Sidhu.

Tom Brown requested inspector’s written NOVs be included in future Board packets, and inspectors are available to testify at hearings.

**ACTION:** For future hearings, the Division will provide the inspector’s written NOV in the Board packet and have the inspectors available for possible testimony/questioning.

◆ **Reciprocal Licensing**

In August, Steve Keys attended the National Electrical Reciprocal Alliance (NERA) meeting in Bismarck, North Dakota. Approximately 12 states have agreed to participate in the NERA; waiving the journeyman exam to applicants that meet the minimum requirements for licensure in the state in which to work.

A copy of the NERA Agreement for Journeyman License between North Dakota and Idaho was distributed to the Board for review.

The Board endorsed the concept for the journeyman license only, and authorized the Administrator to enter into agreements with participating states.

**MOTION:** Jeff Wheeler made a motion to accept the NERA Agreement. Bob Scott seconded. All in favor, motion carried.

◆ **Schedule 2011 Meeting Dates**

The 2011 Idaho Electrical Board meetings are as follows: January 6th (Thursday), April 21st (Thursday), July 19th (Tuesday), and October 18th (Tuesday).

**MOTION:** Jeff Wheeler made a motion to accept the 2011 meeting dates. Al Frieze seconded. All in favor, motion carried.

◆ **Outreach Subcommittee Meeting**

Due to scheduling conflicts, the Outreach Subcommittee has not met for several months. Joe Schreehagen asked the Board to remove him as chairman and dissolve the subcommittee. Mr. Schreehagen expressed merit in having an industry outreach program and suggested the industry partners meet and report to the Board its findings at a later date.

◆ **Schooling**

Enrollment – Irene Vogel, Professional Technical Education (PTE), reported that except for Idaho State University (ISU) enrollment in the Electrical Apprenticeship programs is slightly down from last year.

Curriculum Agreement – The DBS and the six technical colleges (North Idaho College, Lewis Clark State College, Idaho State University College of Technology, College of Southern Idaho, College of Western Idaho, and Eastern Idaho Technical College) met to develop a standard curriculum for the Electrical, HVAC, and Plumbing State Licensure Apprenticeship programs.

The term “curriculum” is defined as course outline and competencies. The goal is to achieve the same skill level upon completion of course work by teaching the same competencies.

On-line courses are being developed by each technical college. There are no geographic boundaries for the delivery of on-line courses; therefore, a technical college cannot actively recruit outside its region.

The Division and Board are responsible in ensuring all educational entities adhere to the same curriculum outline. Chairman Brown inquired why proprietary institutions were not included in the curriculum discussion.

Irene Vogel offered to create a committee, comprised of individuals from the technical college system, proprietary institutions, industry, and division, to review the current curriculum outlines and competencies; bringing the findings back to the Board.

In the interest of continuity it was suggested that a state apprenticeship board be created to represent apprentices.

State Energy Sector Partnership Grant – The Idaho Department of Labor received the State Energy Sector Partnership grant in the amount of \$5.9 million dollars to bring green technology equipment into classrooms. Approximately \$5.4 million was awarded to the technical college system and 25 high schools around the state. The remaining \$500,000 is set aside for apprenticeship programs.

Julie Pipal, Independent Electrical Contractors (IEC), offered to provide the Board with a list of curriculum standards approved by the U.S. Department of Labor Apprenticeship and IEC's registration fees.

Irene Vogel provided background on how the Idaho Department of Labor, specifically PTE, received the monies from the American Recovery and Reinvestment Act of 2009 (ARRA).

Joe Schneehagen offered to implement a state apprenticeship meeting and bring the information to the January 2011 Board meeting. Ms. Vogel offered to represent the technical colleges on a committee/board. Administrator Pearce modified the suggestion by offering the DBS staff meet with all interested parties to discuss how to collectively receive and disperse the remaining funds to Idaho's apprenticeship programs. The Board was in agreement for the meeting.

**ACTION:** For the January 2011 Board meeting, the DBS will meet with interested parties and propose a solution on how to collectively receive and disperse the remaining monies from the grant.

A lengthy discussion ensued as to the definition/policies of "on-line" courses and the number of classroom hours required in a year in terms of associated training. For clarity, it was suggested the term "classroom" be reviewed and possibly changed in the statute.

◆ **UL Field Evaluation Deficiency Statistics Presentation**

Jeff Fitzloff, Underwriters Laboratories (UL), provided a brief PowerPoint presentation on the 2006 to August 2010 UL field evaluation deficiency statistics. The presentation was also delivered to the 2010 IAEE section meetings.

◆ **Potential Code Change Impact on Electric Heat**

On July 12, 2010, an article was published in the National Association of Home Builders (NAHB) on-line weekly newspaper Nation's Building News stating the proposal to ban installation of electric heating was withdrawn by its proponents and would not be included in the 2012 IECC.

◆ **Criteria for Continuing Education Providers**

For future consideration, the Division would like to charge a processing fee to review/approve applications for continuing education instructors and classes.

A proposed rule, to include a \$50.00 processing fee for CEU instructor and class applications, has been approved by the Idaho State Plumbing Board and will go before the 2011 legislature.

The Division surveyed the surrounding states and only one state charges a fee to certify continuing education instructors and classes.

◆ **Electrical Program Manager Report**

Job Responsibility – Al Caine provided a brief history of his previous and current responsibilities with the Division.

Electrical Workplace Safety – An Electrical Safety program, created by Al Caine, was presented in part at the meeting. The program establishes standards and procedures for general safety requirements in the workplace, as well as working safely in proximity to electrical hazards as applies to the DBS personnel in the normal course of their duties. Training has been and continues to be conducted throughout the state to DBS inspectors and various agencies.

DBS inspectors have been provided the Hazard Risk Category 2 Arc Flash kits, and instructed to comply with NFPA 70E when inspecting energized electrical equipment.

2011 National Electrical Code (NEC) – The 2011 NEC was distributed to the board members. At the July 2010 meeting the Board opted to review the new code prior to making a decision whether to adopt the amendments. Following are a few of the items that need to be addressed:

- Arc Fault Circuit Interrupters (AFCI)
- Swimming Pools
- 40-0 SER Cable

**ACTION:** At the January 2011 Board meeting, Al Caine will provide a list of changes to the 2011 NEC that may significantly impact the industry.

DBS Inspector Training – Several DBS inspector meetings have been scheduled for the near future. The code will be addressed; however, the meetings will consist primarily of internal housekeeping; i.e., statewide policies, reinspection charges, NOVs, etc.

Commercial Job Plan Reviews – There are no requirements in which plans of commercial installations in other than state-owned facilities must be reviewed. At the time of inspections, the DBS staff has noticed contractors and/or owners of the jobs have incurred additional correction fees that could have possibly been avoided had the plans been reviewed prior to the job commencement.

The Division is currently offering, as part of the permit fee, to voluntarily review plans prior to the beginning of the jobs. Several board members expressed it as a win/win situation.

◆ **Idaho Telecommunications Coalition**

Jim Overholser, Idaho Telecommunications Coalition, informed the Board the Coalition's objective is to work through and rectify several issues with the proposed legislation before introduction at the 2012 Legislative Session.

◆ **Operational Report**

Electrical Program Manager – Al Caine, a current DBS employee, accepted the new position of Electrical Program Manager. Mr. Caine brings a wealth of information to the Division in his capacity, as well as others.

70E Program – The 70E program has been universally successful. Al Caine has graciously provided copies of the program to all interested parties.

Cross-Training Inspectors – Cross-training has proven to be a great tool/resource saver. Inspectors have taken on increased responsibilities relating to the Industrial Safety program and the Elevator program. This allows the Division to better utilize the resources it has available.

Legislation – The proposed statutory amendment for the master inspector is expected to become effective in 2013. This will allow a soft implementation of the requirements; providing all parties ample time to meet the prerequisites.

Apprenticeship Hours – The DBS clarified that there is no “temporary” journeyman license. The rule stipulates an apprentice electrician shall be able to take the journeyman electrician examination upon completion of his education and three years, minimum 6,000 hours, of on-the-job experience. However, a journeyman license WILL NOT be issued until the apprentice electrician has completed, and the Division has verified, all necessary work experience requirements/documentation.

◆ **Administrator Report**

Layoffs – There is specific criteria in which to layoff state employees and is virtually impossible to arbitrarily pick and choose which employees to relocate and/or lay off. To retain as many employees as possible, staff has been, and continues to be, cross-trained.

CAS – As of today, over 50 percent of permits are purchased on-line. Staff continues to travel throughout the state twice a year to demonstrate the system and its improved/modified features.

Regional Office – In August the Division reopened a regional office in Pocatello.

Electronic Telephone System – A new electronic telephone system will be installed within the Division’s three regional offices. The system will allow the customer resource team (CRT) to perform “back up” services to one another. Calls will be answered by the next available CRT member regardless of their location; thus, offering two additional hours of service to customers each work day.

“Choosing a Contractor” Brochures/Public Service Announcements (PSA) – The DBS and Better Business Bureau (BBB) have collaborated on the creation of brochures specific to the Idaho Electrical, HVAC, and Plumbing contractors. The brochures are currently accessible through the Division’s three offices and the BBB offices across the southern half of Idaho and eastern portion of Oregon. The Division is working with the BBB, North Idaho Chamber, and Washington Chamber for their endorsements and distribution of the brochures to the north Idaho BBB office, which is located in Spokane, Washington.

A PSA that coincides with the brochures has been completed and will be distributed to radio stations throughout the state with the brochures.

Compliance/Outreach Program – A large number of out-of-state contractors are working in Idaho without obtaining the proper Idaho licenses. The Division recognizes compliance as an issue and is in the process of creating an Outreach Program. One suggestion is to have an outreach advisor in each of the Division’s three regions working with local government.

Notice of Violation (NOV) Process – Al Caine is working towards standardizing the NOV process among the Division’s three major Bureaus (Electrical, HVAC, and Plumbing).

**ACTION:** At the January 2011 Board meeting, Al Caine to present the new process on the standardization of NOV's.

Building Rental – The Department of Labor, through the efforts of the DBS and the Department of Administration, will rent approximately 47 percent of the space in the Division’s Meridian office. Kelly Pearce gave a brief description of possible changes within the building.

Bulletin System – A bulletin system has been created and will be used by the respective program managers for the Electrical, Plumbing, HVAC, and Building Bureaus to interpret code questions as they arise. Bulletins will be distributed to staff and posted on the Division’s website.

Financial Report – In 2007, the DBS was authorized 152 full-time positions. Today there are 34 vacancies within the Division.

The two budgets the Division operates within were explained by Kelly Pearce. Upon comparison of the FY 2010 appropriation to the estimated expenditure, there is a decrease of 21.7 percent.

Kirk Weiskircher reviewed the Electrical Board Fund Fiscal Year 2011 Financial Statements as of August 31, 2010.

On the Revenue/Expense page in the Board packet, Tom Brown questioned what the topic “Professional Services” is and what it entails.

**ACTION:** Kirk Weiskircher to research “Professional Services”; bringing his findings to the January 2011 Board meeting.

◆ **Old/New Business**

There was no old/new business.

◆ **Executive Session**

An Executive Session was not required.

**MOTION:** Tim Phillips made a motion to adjourn. Allan Perman seconded. All in favor, motion carried. The meeting adjourned at 3:27 p.m. (MDT).

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TOM BROWN, CHAIRMAN  
IDAHO ELECTRICAL BOARD

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C. KELLY PEARCE, ADMINISTRATOR  
DIVISION OF BUILDING SAFETY

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DATE

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DATE

\*These DRAFT minutes are subject to possible correction and final approval by the Idaho Electrical Board 12/07/10rb

# IDAHO ELECTRICAL BOARD

## Agenda Item No. 03

## Schooling Update

**OBJECTIVE:** To update the Board on Professional Technical Education's (PTE) current school activities, enrollment, etc.

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**ACTION:** Informational

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**BACKGROUND:** This topic is addressed at all regularly scheduled Idaho Electrical Board meetings.

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**PROCEDURAL HISTORY:**

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**ATTACHMENTS:** No documentation

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# IDAHO ELECTRICAL BOARD

## Agenda Item No. 03a

## Star Energy Sector Partnership Grant

**OBJECTIVE:** To come to a solution on how to collectively receive and evenly disperse the remaining monies from the Star Energy Sector Partnership Grant.

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**ACTION:** Informational

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**BACKGROUND:** The Idaho Department of Labor received a grant in the amount of \$5.9 million dollars to bring green technology equipment into classrooms. Approximately \$5.4 million dollars was awarded to the technical college system and 25 high schools around the state. The remaining \$500,000.00 is set aside for apprenticeship programs.

At the October 2010 Idaho Electrical Board meeting, Irene Vogel with PTE provided background on how the Idaho Department of Labor, specifically PTE, received the monies from the American Recovery and Reinvestment Act of 2009 (ARRA).

The Board was in agreement that the DBS staff would meet with all interested parties to discuss how to collectively receive and disperse the remaining funds to Idaho's apprenticeship programs.

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## **PROCEDURAL HISTORY:**

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**ATTACHMENTS:** No documentation

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# IDAHO ELECTRICAL BOARD

## Agenda Item No. 04a

## Board Position – Appointments

**OBJECTIVE:** To stagger the terms of the board members and maintain a cohesive unit as members rotate in and out.

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**ACTION:** Informational

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**BACKGROUND:**

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**PROCEDURAL HISTORY:** The majority of board member's terms expire on the same month/date/year. Due to the way the statute is written, this issue will need to be addressed legislatively.

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**ATTACHMENTS:** No documentation

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# IDAHO ELECTRICAL BOARD

## Agenda Item No. 04b Board Position – Inspector Representative

**OBJECTIVE:** To consider the creation of one new electrical inspector position on the Board.

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**ACTION:** Informational

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**BACKGROUND:** At the October 2010 Idaho Electrical Board meeting Bret Stoddard, city of Rexburg, asked the Board to consider creating a new position on the Board to represent electrical inspectors.

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**PROCEDURAL HISTORY:**

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**ATTACHMENTS:** No documentation

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# IDAHO ELECTRICAL BOARD

## Agenda Item No. 05 a-d

## Code Issues

**OBJECTIVE:** To review the following amendments in the 2011 NEC for possible adoption, as well as changes to the 2011 NEC that may significantly impact the industry.

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**ACTION:** Informational

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**BACKGROUND:** **a. Ser Cables** – It is recommended that 4/0 Aluminum SER cable be allowed to be used as a feeder to supply a 200 A residential shop panel when not installed in insulation.

- 310.15(b) (6) – 120/240 Volt, 3-Wire, Single-Phase Dwelling Service and Feeders.
- 338.10(b) (4) (a) SE Uses Permitted. Installation methods for branch circuits and feeders.

**b. AFCI** – 210.12 All 120-volt, single phase, 15- and 20- ampere branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by a listed AFCI, combination-type, installed to provide protection of the branch circuit.

**c. Swimming Pools** – 680.26 Equipotential Bonding. (B)(2) Perimeter Surfaces. The perimeter surface shall extend for 3 ft. horizontally beyond the inside walls of the pool and shall include unpaved surfaces, as well as poured concrete surfaces and other types of paving.

**d. 2011 NEC** - The 2011 NEC was distributed to the board members at the October Board meeting. Al Caine to provide a list of changes to the 2011 NEC that may significantly impact the industry.

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**ATTACHMENTS:** PowerPoint Documentation

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## **AFCI PROTECTION**

**From:** Clements Dennis L [mailto:dennis.l.clements@state.or.us]

**Sent:** Tuesday, November 30, 2010 3:21 PM

**To:** 'tbaker@broward.org'; 'lchan@cityofno.com'; Al Caine; 'rchilton@ncdoi.net'; 'cmclooten@ci.fairbanks.ak.us'; 'sdouglas@qps.ca'; 'theowl88@aol.com'; 'dcook@shelbycouthalabama.net'; 'grant.hammett@dora.state.co.us'; 'hing235@ini.wa.gov'; 'hum@co.henrico.va.us'; 'rhunter@whoever.com'; 'chris@ci.north-logan.ut.us'; 'clynch@rcid.dst.fl.us'; 'tmclintick@wifi7.com'; 'tmoore1767@aol.com'; 'snewmans@bellsouth.net'; 'rpjo@comcast.net'; 'vsalvia23@gmail.com'; 'iaei@secretary.net'; 'dofferdahl@nd.gov'; 'dick.pokorny@ci.marshfield.wi.us'; 'sam.sampson@state.mn.us'; 'jwages@siloomsprings.com'; 'bob.walsh@hayward-ca.gov'; 'gyokomichi@honolulu.gov'; 'dwilliams@deltami.gov'

**Cc:** 'Sumption Shane R'

**Subject:** AFCI protection

Fellow attendees of the NFPA Electrical Inspector's Forum,

The state of Oregon is in the process of adopting the 2011 NEC and my manager has asked me to poll other states for their views on adoption of the expanded requirement for AFCI protection. I will greatly appreciate your candid reply regarding how your jurisdictions call this requirement.

The Oregon Electrical Specialty Code advisory committees for the last two cycles have heard lots of testimony and deliberated on just how far to take the issue of AFCI protection. I've researched the web sites and electrical chat rooms for commentary on this issue, but I need to gather information about what other building departments across the nation are doing.

Thank you in advance, for your comments and consideration.

Regards, DC  
Dennis Clements  
Electrical Program Chief  
(503)378-4459

### **Responses:**

Your email is timely. I am interested in the same research. The Idaho State Electrical Board will meet January 6, 2011. This is one of the topics for discussion. Idaho did not expand the AFCI requirement beyond the bedrooms when it adopted the 2008 NEC. I will keep this body informed on Idaho's actions and would appreciate any information from others.

#### **Al Caine**

Industrial Safety & Electrical Program Manager  
Division of Building Safety  
1090 E. Watertower St.  
Meridian, ID 83642  
(208) 332-7153  
FAX (208) 855-9669  
[al.caine@dbs.idaho.gov](mailto:al.caine@dbs.idaho.gov)

\* \* \* \* \*

The State of Arkansas adopted the 2008 NEC without any kind of amendments. One of the complaints is that it would be very expensive to conform to the requirements of the 2008 NEC regarding AFCI protection. In most of the dwelling units this has amounted to an additional two and sometimes three AFCI breakers. In the end, the builder passes the cost of these requirements on to the consumer. In speaking with the end user (the homeowner) they are happy to have the added level of protection.

I have experienced very little opposition to the requirements for AFCI protection. As with any new requirement it took a few months for the electrical contractors to get comfortable with these devices. Most had to slow down and make sure that the neutrals and grounds did not come together in the field. Most common problems were within circuits with recessed fixtures. The neutral wiring inside the units would sometimes become nicked and in contact with the grounded fixture. This would trip the breaker and cause the electrician to troubleshoot the circuit until the problem was found. Most of the time the problem was caused by the electrician pulling on the conductors too hard and causing the problem.

Regards,

Joseph Wages, Jr.  
Siloam Springs Electric Department

\* \* \* \* \*

The Colorado State Electrical Board has fully supported the efforts of the NEC to improve electrical safety. Our department's mission statement is "Consumer protection is our mission." This is exactly what an arc fault circuit interrupter does. When it was time to adopt the 2008 NEC, the homebuilders associations turned out in force to oppose it and one after another encouraged the Board to amend it to exclude tamper-resistant and AFCI provisions. Once the hysteria had subsided, even though they could have voted without comment, EACH Board member spoke in turn about why he or she believed it was imperative that they adopt the 2008 NEC as printed in the interest of maintaining and advancing public safety in our state. It came down to a matter of keeping the public trust and doing what they were charged with doing. The nine members voted unanimously to adopt the 2008 NEC without amendment. (And, the sun came up the next morning despite what the homebuilders had told us!) The Board has never amended the National Electrical Code in its 51-year history. We believe this is an ill-advised practice, rooted solely in vanity, which should be avoided at all costs. For all that there will always be differing interpretations of the NEC, it is a complete, consensus-based document which is more than adequate for governing electrical installations, regardless of where they may occur.

We are on-track to adopt the 2011 NEC effective July 1, 2011. It is expected this will also likely occur without amendment. We would respectfully encourage your state to stand with us for electrical safety and protecting those who depend on us.

Best regards,

**J. Grant Hammett**  
**Supervisor Electrical Inspector**  
**Colorado Department of**  
**Regulatory Agencies**  
Division of Registrations  
Electrical Board

1560 Broadway, Suite 1500  
Denver, CO 80202  
P 303.894.2990 F 303.869.0258

\* \* \* \* \*

The State of Wisconsin has adopted the expanded AFCI protection rules in their entirety. We did provide a delay on its enactment to Jan 1, 2010. Wisconsin has one minor change that expands the wiring method used by including the use of MC cable:

Substitute the following wording for NEC  
210.12 (B) Exception No. 1: **Where RMC, IMC, EMT or steel armored cable, Type AC or Type MC, meeting the requirements of 250.118 using metal outlet and junction boxes is installed for the portion of the branch circuit between the branch circuit over current device and the first outlet, a combination AFCI at the first outlet may be installed to provide protection for the remaining portion of the branch circuit.**

Dick Pokorny  
Building Services Supervisor  
City of Marshfield  
630 S. Central Ave.  
P.O. Box 727  
Marshfield, WI 54449  
715.387.1344  
715.384.7631 (FAX)  
dickp@ci.marshfield.wi.us

\* \* \* \* \*

**From:** Bob Walsh [mailto:Bob.Walsh@hayward-ca.gov]

The State of California will probably adopt the 2011 NEC in its entirety in 2013 as the 2013 California Electrical Code, effective 2014. Currently, the 2010 California Electrical Code, which is based upon the 2008 NEC, will be enforceable in January of 2011.

All AHJs in California, other than Federal Jurisdictions in the State of California, will be required to enforce the codes that the State of California adopts.

\* \* \* \* \*

**From:** TMoore1767@aol.com [mailto:TMoore1767@aol.com]

The State of Ohio originally adopted the 2008 NEC as of January 1, 2008 which had been normal practice for many years. The 2008 NEC for 4-Family and above along with all commercial buildings has not changed, however with opposition of the home builders the RCAC (Residential Advisory Code Committee), which is the body that makes recommendations to the Ohio Board of Building Standards for all residential codes along with any rules dealing with residential structures, and BBS (Board of Building Standards) were asked to consider actions that would allow the 2005 NEC to be continued to be used for 1-, 2-, 3-family dwellings. An emergency order was issued on effective March 31, 2008 by the governor to resort back to the 2005 NEC and as a result the decision was made to create an ad-hoc committee to study the concerns related to the 2008 NEC. Both Tim McClintock and myself were appointed to this

committee and after a couple meetings a consensus was to resort again back to the 2008 NEC with no amendments. Having completed the Ohio Revised Code 119 rule adoption process, as of January 1, 2009 the 2008 NEC became effective.

The following links will give a little more detail if you wish to research:

[http://www.com.ohio.gov/dico/docs.bbst\\_BBSNewsletter7\\_4.pdf](http://www.com.ohio.gov/dico/docs.bbst_BBSNewsletter7_4.pdf)

<http://www.com.ohio.gov/dico/docs/367.pdf>

If you would need reference material you can visit the Ohio Chapter IAEI at [www.Ohioiaei.org](http://www.Ohioiaei.org) and on the left side click on the 2008 Electrical Ad Hoc Committee Report. Here you will find a 176 page White Paper prepared by the Ohio Chapter IAEI. As for the 2011 NEC adoption, rumor is for Commercial we may be looking at a September 2011 adoption and for residential if no opposition from RCAC the same, but to early to tell. It may be worth noting Tim McClintock, Oran Post and myself did a 112 slide analysis on the 2011 NEC to the Ohio Board of Building Standards Staff and Code Committee and the results were favorable as the statement was made there does not seem like a huge impact by the changes.

Let me know if you need any additional information. Have a Merry Christmas and Happy New Year.

Tom Moore

\* \* \* \* \*

Good to hear from you and hope you enjoy a happy and healthy holiday season!

Yes, there is concern here in Minnesota regarding 210.12(B). The state has adopted the NEC without revision, deletion or amendment since 1899 and we certainly hope to continue that course. Deviating from the accepted national standard for electrical safety has always been deemed to high-risk and we really don't want to see it happen. The adoption of the 2011 NEC is on track to become part of the Minnesota State Building Code on July 1, 2011.

That said, we have a significant number of older homes that will not fit well with AFCI device functionality, for example homes that still have knob-and tube wiring. Those simple alterations or extensions of residential branch circuits will be quite problematic for electrical contractors to bid. Adding a hard-wired smoke alarm could take an hour or it could take a couple of days to troubleshoot the entire circuit. The alternative may also be a challenge - to install new AFCI protected wiring from the service panelboard to the new outlet.

I do believe in AFCI and the attached 2003 document from the CPSC has some good supporting arguments, including:

*"The inclusion of AFCI protection is expected to reduce, but not eliminate residential fires from electrical distribution systems. Citing reviews of in-depth investigations, ES staff estimates that the inclusion of AFCI protection in circuit breakers could have prevented 50% or more of these fires. "*

So, there you go then. Good luck to all of you guys in your 2011 adoption processes!

Sam  
M. "Sam" Sampson  
Construction Codes and Licensing Division  
Department of Labor & Industry

443 Lafayette Road North  
Saint Paul, Minnesota 55155-4342  
Direct 651-284-5820  
Fax 651-284-5743  
[www.dli.mn.gov](http://www.dli.mn.gov)

\* \* \* \* \*

The Commonwealth of Pennsylvania adopts the NEC 2 years after it is published. The adoption here is tied to the UCC. The NEC is not adopted as a stand alone document. Currently we are on the 2008 NEC and are enforcing all of the AFCI requirements.

We have had great success with AFCI devices. I agree with Mr. Wages' statement that it takes a few months for the contractors to become accustomed to the new rules. After this breaking in period, all is well.

It is my experience that these devices are directly responsible for better installations. In the past, if a grounded conductor and a grounding conductor were to accidentally contact each other, as might occur when packing a receptacle box, there was no indication of a problem. With the advent of AFCI technology, this hazard is instantly recognized and must be corrected before the breaker will reset.

As a reminder, we are primarily third-party inspectors here in Pennsylvania. I work in dozens of different jurisdictions within Pennsylvania. All of them are on the same version of the code now. This was not the case prior to 2004. Back then, it was possible to be using the 1999 NEC on one job, then crossing the street to find that the most currently adopted version was the 1990 NEC. Thankfully the state decided that we all should all be on ONE version of the book!

The most frequent complaint is in regard to the cost of the devices. When compared to the cost of upgrading a counter to granite, it is insignificant. AFCI devices enhance safety at a reasonable cost. When extended over the typical 10-year life of a circuit breaker, it works out to about \$4.00 per year per circuit. This is a cost that can EASILY be borne by the customer.

Michal Hofkin  
Electrical Inspector  
MAI, Inc. / BIU, Inc.  
[MHofkin@biuinc.com](mailto:MHofkin@biuinc.com)  
215-679-5883 - ph/fx

\* \* \* \* \*

The State of Tennessee adopted the 2008 NEC effective January 1, 2009. There are some local jurisdictions that have their adoption process and times that may differ from the statewide adoption. (For example, the City of Chattanooga, City of Nashville, City of Knoxville and various others that have inspection departments.) For the first time in history (That I can find in research of available documents), the state chose to lessen the minimum standards of the National Electrical Code as written. The Department of Commerce and Insurance made 3 amendments. One of the amendments was to keep the AFCI requirements in bedrooms only and not allow the expansion. At the present there has not been a date set for a public hearing on the adoption of the 2011 NEC.

I expect full implementation of the AFCI upon adopting the 2011 NEC. I agree with others there was a "learning" process for installers. As inspectors it brought opportunity to work with the

contractors/installers on the importance of the installation. It also brought education and safety to the forefront of the industry. Even though the state only limited the AFCI protection to the bedroom area, I have not had 1 homeowner who did not want the expanded areas AFCI protected after learning how the device worked.

If I can help in any way, please feel free to give me a call.

Wishes for a Merry Christmas to each and all,  
Susan Newman Searce  
Inspector, State of Tennessee

\* \* \* \* \*

**From:** Bob Walsh [mailto:Bob.Walsh@hayward-ca.gov]

The City of Hayward, CA, has adopted the 2010 California Electrical Code that is based upon the 2008 NEC and the state amendments. However, the expanded requirements for AFCI protection from the 2011 NEC have not been added.

**From:** Clements Dennis L [mailto:dennis.l.clements@state.or.us]

**Sent:** Thursday, December 16, 2010 3:30 PM

**To:** 'Al Caine'; tbaker@broward.org; lchan@cityofno.com; rchilton@ncdoi.net; cmcloon@ci.fairbanks.ak.us; sdouglas@qps.ca; theowl88@aol.com; dcook@shelbycountyalabama.net; grant.hammett@dora.state.co.us; hing235@ini.wa.gov; hum@co.henrico.va.us; rhunter@whoever.com; chris@ci.north-logan.ut.us; clynch@rcid.dst.fl.us; tmclintick@wifi7.com; tmoore1767@aol.com; snewmans@bellsouth.net; rpjo@comcast.net; vsalvia23@gmail.com; iaei@secretary.net; dofferdahl@nd.gov; dick.pokorny@ci.marshfield.wi.us; sam.sampson@state.mn.us; jwages@siloomsprings.com; Bob Walsh; gyokomichi@honolulu.gov; dwilliams@deltami.gov

**Cc:** Sumption Shane R

**Subject:** RE: AFCI protection

Fellow Electrical Professionals,

I would like to thank those of you who responded to my request for information regarding adoption of the AFCI provisions of the NEC. I have compiled the responses and will send a summary document to this group before the end of the year. In the meantime, I have one more request for information. I would like to gather some data from the jurisdictions that have adopted the expanded requirement for AFCI protection. I'm looking for data indicating a clear reduction in the number of electrical fires since the adoption of this code provision.

Again, I appreciate your responses.

Regards, DC  
Dennis Clements  
Electrical Program Chief  
Oregon Building Codes Division  
(503)378-4459

# Division of Building Safety

*Building a Safer Idaho*



# Electrical Board Meeting

January 6, 2011

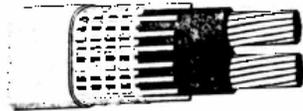
# SER Cable

- Issue to Idaho State Electrical Board for consideration:
- Recommend that 4/0 Aluminum SER cable be allowed to be used as a feeder to supply a 200 A residential shop panel when not installed in insulation.

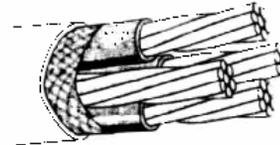
# SER Cable

- Two Code Sections apply
- 310.15(B)(6) – 120/240 Volt, 3-Wire, Single-Phase Dwelling Service and Feeders
- 338.10(B)(4)(a) SE Uses Permitted. Installation Methods for Branch Circuits and Feeders

# SER Cable



**SEU**  
Uninsulated Wrap-around  
Neutral



**SER**  
Uninsulated Neutral  
Conductor

# 310.15(B)(6)

- Table allows a reduction in conductor size for single-phase residential services compared to 310.16
- “main power feeder” 120/240-Volt, 3-Wire Single-Phase individual dwelling unit
- Applied only to Service Entrance conductors until 1978 NEC – “feeder that carries the total current supplied by that service”
- The 2008 NEC clarified again that use of this Table applies only to conductors carrying 100% of the dwelling unit’s diversified load
- This table would not apply to the 4/0 SER shop feeder

# 338.10(B)(4)(a)

- Type SE Cable – Uses Permitted – Installation Methods for Branch Circuits and Feeders
- (a) *Interior Installations.* In addition to the provisions of this article, Type SE Cable shall comply with the installation requirements of Part II of Article 334.

# 334.80

- Ampacity. NM cable
- ...The ampacity shall be in accordance with the 60°C conductor temperature rating...
- 4/0 Aluminum is rated for 150 amps in the 310.16 60°C column.

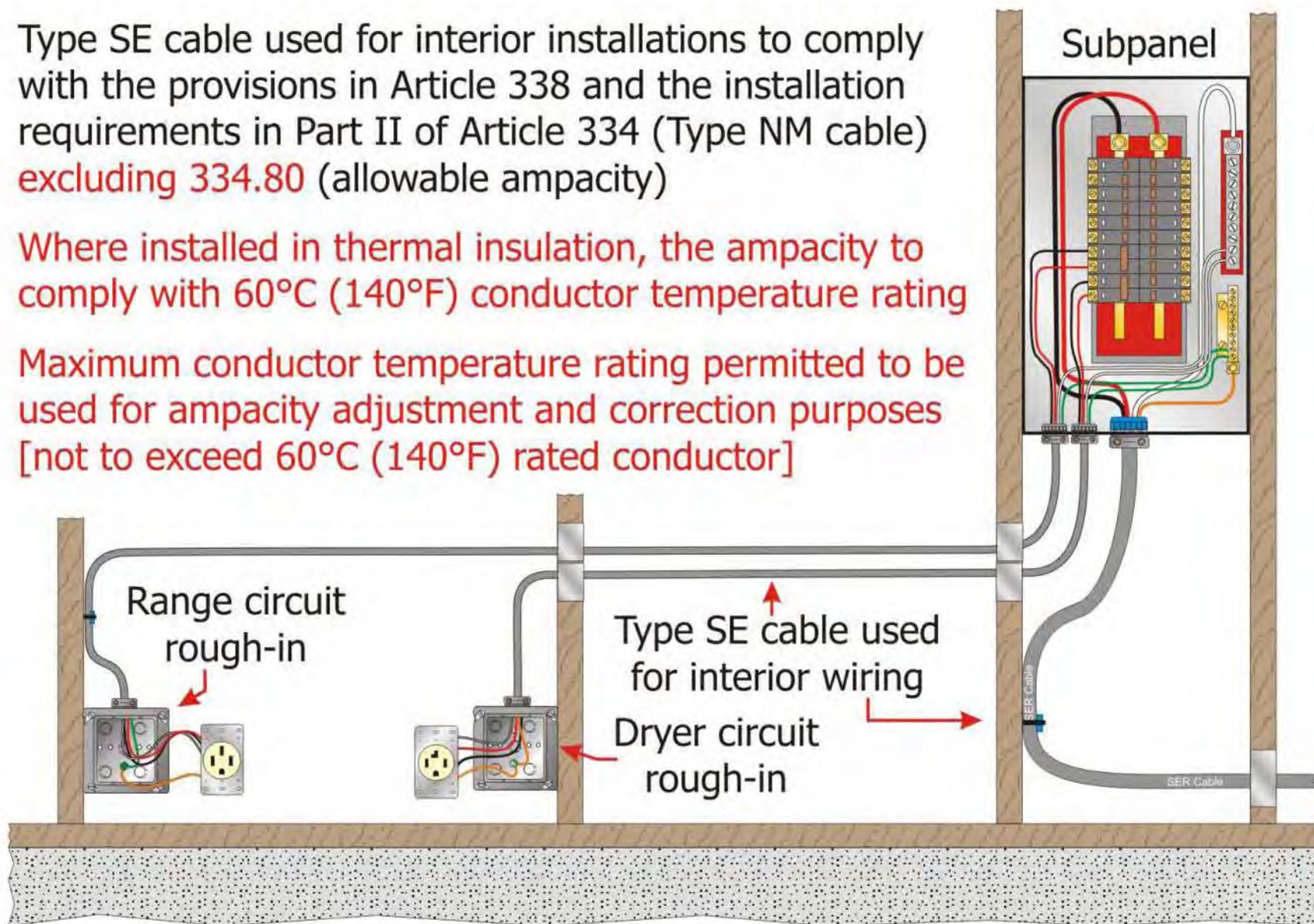
# 338.10(B)(4)(a) Uses Permitted - Type SE Cable



Type SE cable used for interior installations to comply with the provisions in Article 338 and the installation requirements in Part II of Article 334 (Type NM cable) **excluding 334.80** (allowable ampacity)

Where installed in thermal insulation, the ampacity to comply with 60°C (140°F) conductor temperature rating

Maximum conductor temperature rating permitted to be used for ampacity adjustment and correction purposes [not to exceed 60°C (140°F) rated conductor]



# SER Cable



# Arc-Fault Circuit-Interrupters

- 210.12 All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by a listed arc-fault circuit interrupter, combination-type, installed to provide protection of the branch circuit.

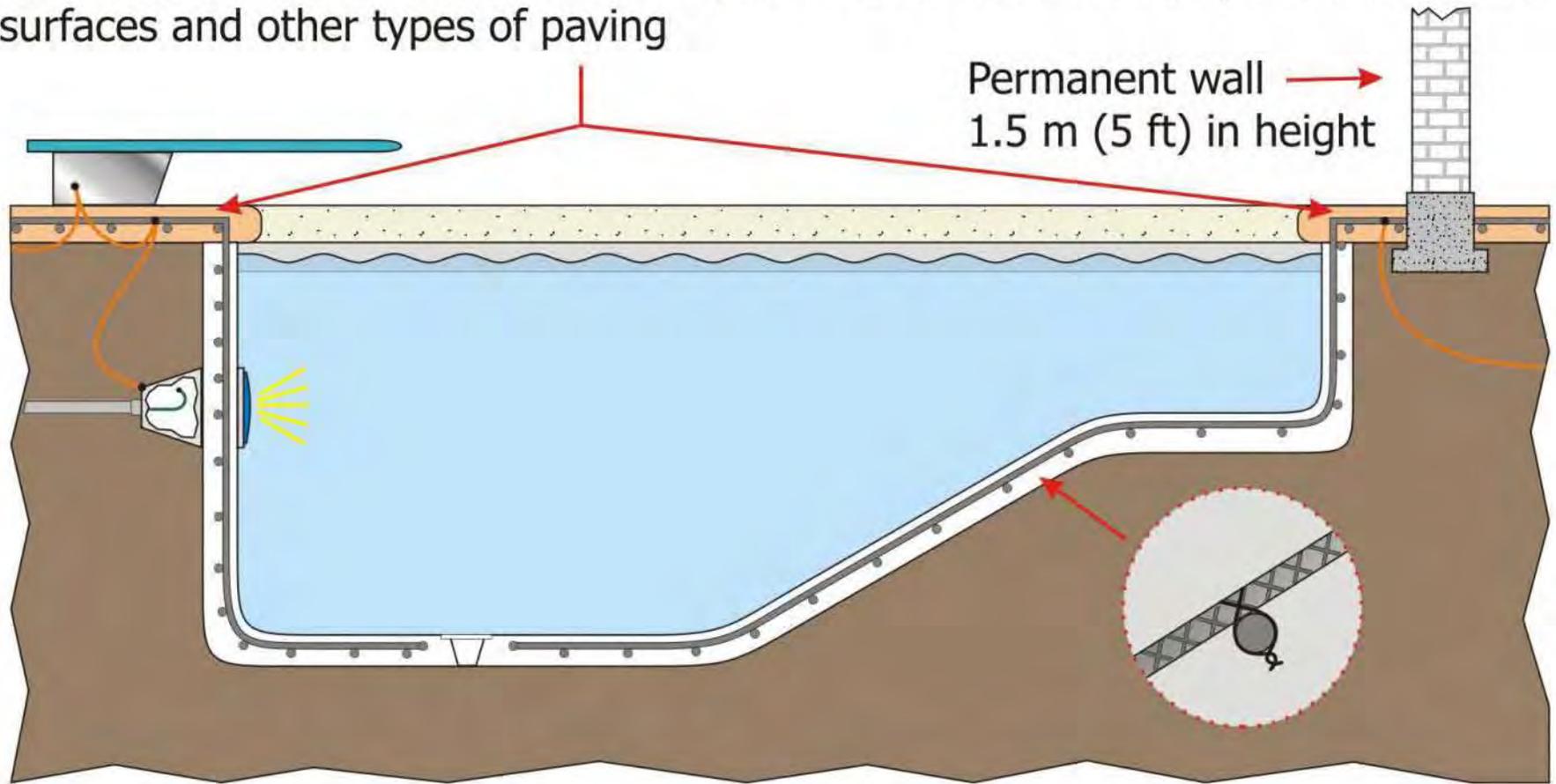
# Swimming Pools

- 680.26 Equipotential Bonding.
- (B)(2) Perimeter Surfaces. The perimeter surface shall extend for 3 ft horizontally beyond the inside walls of the pool and shall include unpaved surfaces, as well as poured concrete surfaces and other types of paving.

# 680.26(B)(2) Bonded Parts of Perimeter Surfaces



The perimeter surface shall extend for 1 m (3 ft) horizontally beyond the inside walls of the pool and shall include unpaved surfaces as well as poured concrete surfaces and other types of paving



Perimeter surfaces less than 1 m (3 ft) separated by a permanent wall or building 1.5 m (5 ft) in height or more shall require equipotential bonding on the pool side of the permanent wall or building



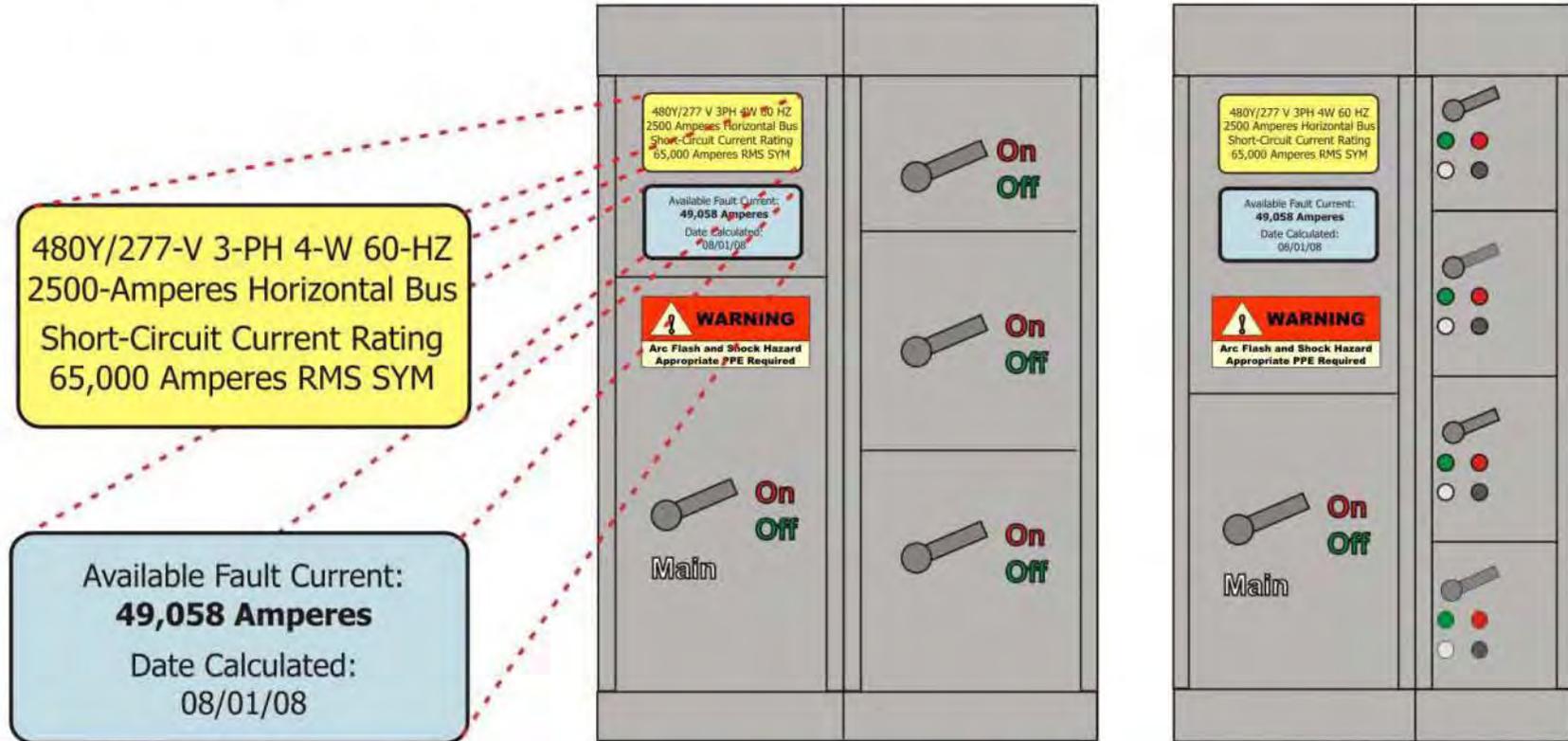
# 2011 NEC





# 110.24 Available Fault Current

Non-dwelling unit service equipment required to be field-marked with the amount of available fault current when installed or modified



Service equipment in other than dwelling units shall be legibly marked in the field with the maximum available fault current

The field marking(s) shall include the date the fault current calculation was performed and be of sufficient durability to withstand the environment involved

# 210.8 Ground-Fault Circuit-Interrupters

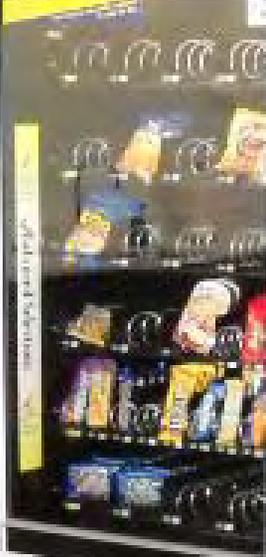


- All GFCIs for personnel must be installed in a readily accessible location
- This applies to 210.8(A), (B), and (C)



SWAPS

Small Amount!



SWAPS

SWAPS

SWAPS

SWAPS



**Cold Drinks**



## 210.52(E)(3) Balconies, Decks, and Porches

- Balconies, decks, and porches that are accessible from inside the dwelling unit required to have at least one receptacle outlet installed within the perimeter of the balcony, deck, or porch (*regardless of size*)
- Receptacle not be located more than 2.0 m (6½ ft) above the balcony, deck, or porch surface
- **Exception** for balconies, decks, or porches with a usable area of less than 1.86 m<sup>2</sup> (20 ft<sup>2</sup>) has been **deleted**





# Article 399 - Outdoor, Overhead Conductors, Over 600 Volts



## Article 399 Outdoor, Overhead Conductors, Over 600 Volts

399.1 Scope

399.2 Definitions

399.10 Uses Permitted

399.12 Uses Not Permitted

399.30 Support

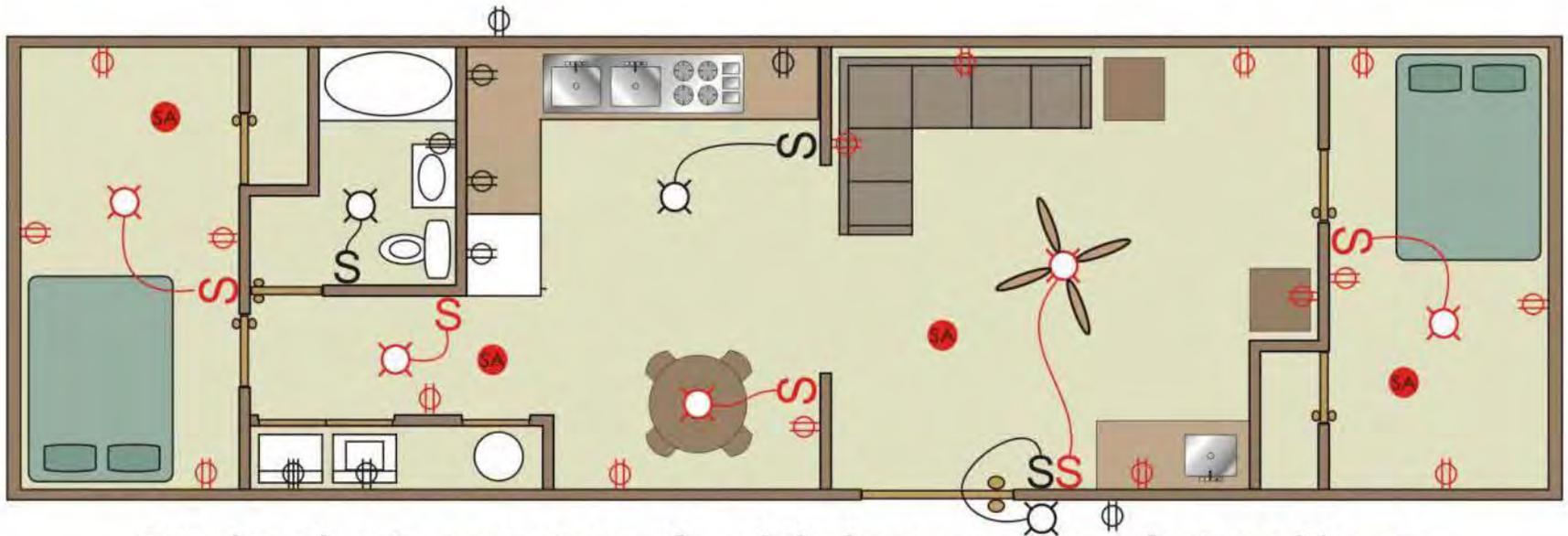
A new article has been added to cover installations of outdoor, overhead conductors rated over 600 volts



# 550.25 AFCIs (Mobile and Manufactured Homes)



All 120-volt branch circuits that supply 15- and 20-ampere outlets installed in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas of mobile homes and manufactured homes shall comply with 210.12 (AFCI)



Overhead cut-away view of mobile home or manufactured home

**Red** = Outlets requiring AFCI-protected branch circuits

## 680.43, Ex. No. 2 Indoor Installations (*Spas and Hot Tubs*)

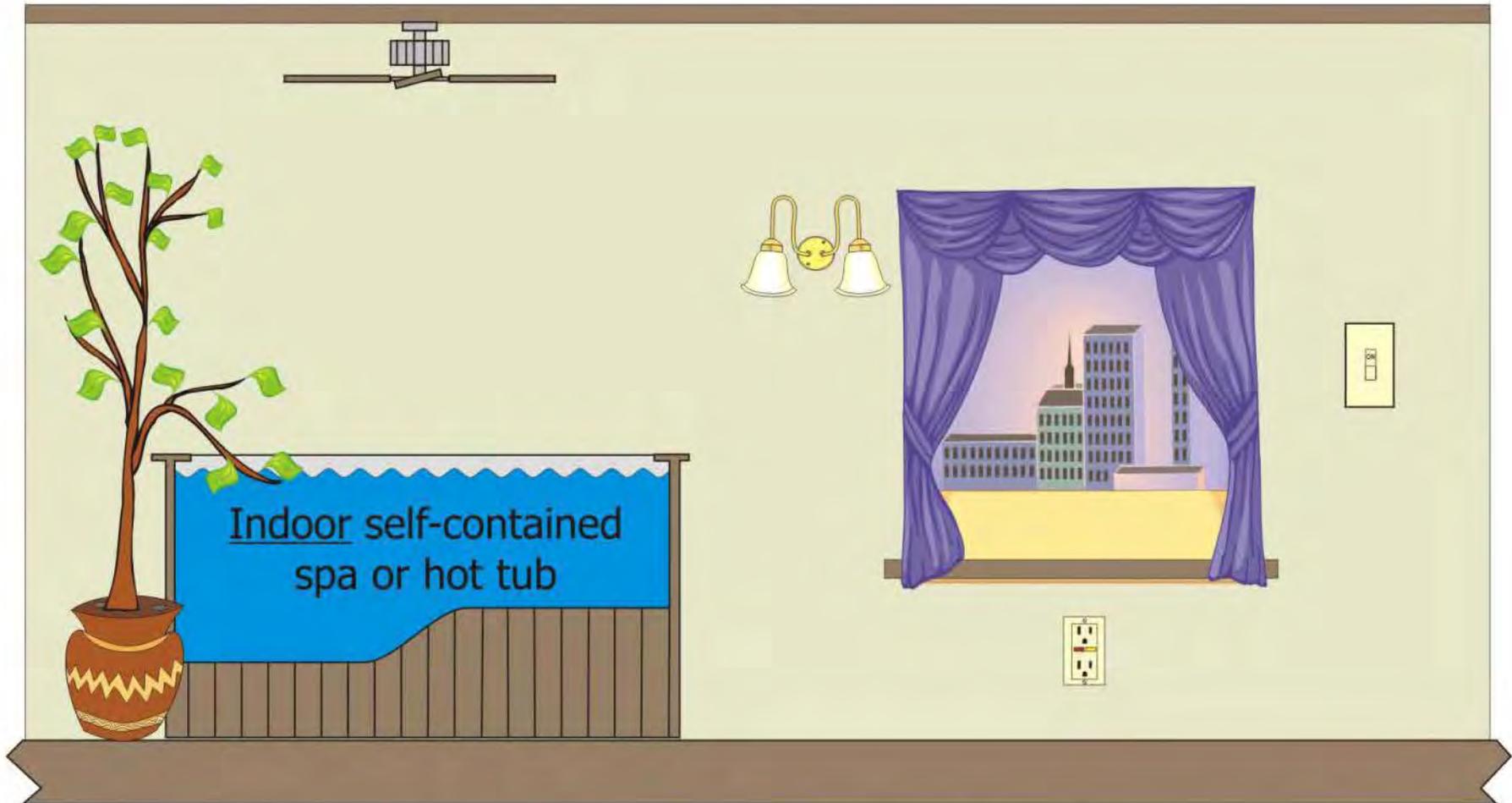
A spa or hot tub installed indoors shall comply with the provisions of Parts I and II of this article except as modified by this section and shall be connected by the wiring methods of Chapter 3.

*Exception No. 1: Listed spa and hot tub packaged units rated 20 amperes or less shall be permitted to be cord-and-plug-connected to facilitate the removal or disconnection of the unit for maintenance and repair.*

*Exception No. 2: The equipotential bonding requirements for perimeter surfaces in 680.26(B)(2) shall not apply to a listed self-contained spa or hot tub installed above the finished floor.*

■ A new exception to 680.43 eliminates equipotential bonding requirements for listed self-contained spa or hot tub installed indoors above the finished floor

# 680.43 Ex. No. 2 Indoor Spas and Hot Tubs



A **new Ex. No. 2** was added to 680.43 specifying that equipotential bonding requirements for listed self-contained spa or hot tub installed indoors above a finished floor is not required

## 690.4(E) Wiring and Connections *(Solar Photovoltaic Systems)*

**(E) Wiring and Connections.** The equipment and systems in 690.4(A) through (D) and all associated wiring and interconnections shall be installed only by qualified persons.

**Informational Note:** See Article 100 for the definition of *qualified person*.

- “Qualified persons” required to perform the described work on Photovoltaic (PV) systems

# 690.4(E) Wiring and Connections



"Qualified persons" required to perform the described work on photovoltaic (PV) systems



**Qualified Person:** One who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to recognize and avoid the hazards involved

# Other Issues?



# IDAHO ELECTRICAL BOARD

## Agenda Item No. 06

## New Notice of Violation (NOV) Process

**OBJECTIVE:** To become familiar with the new NOV/Appeal process.

---

**ACTION:** Informational

---

**BACKGROUND:** Al Caine is working with staff to standardize the NOV process among the Division's three major Bureaus (Electrical, HVAC, and Plumbing). A presentation will be made at the January 2011 Board meeting.

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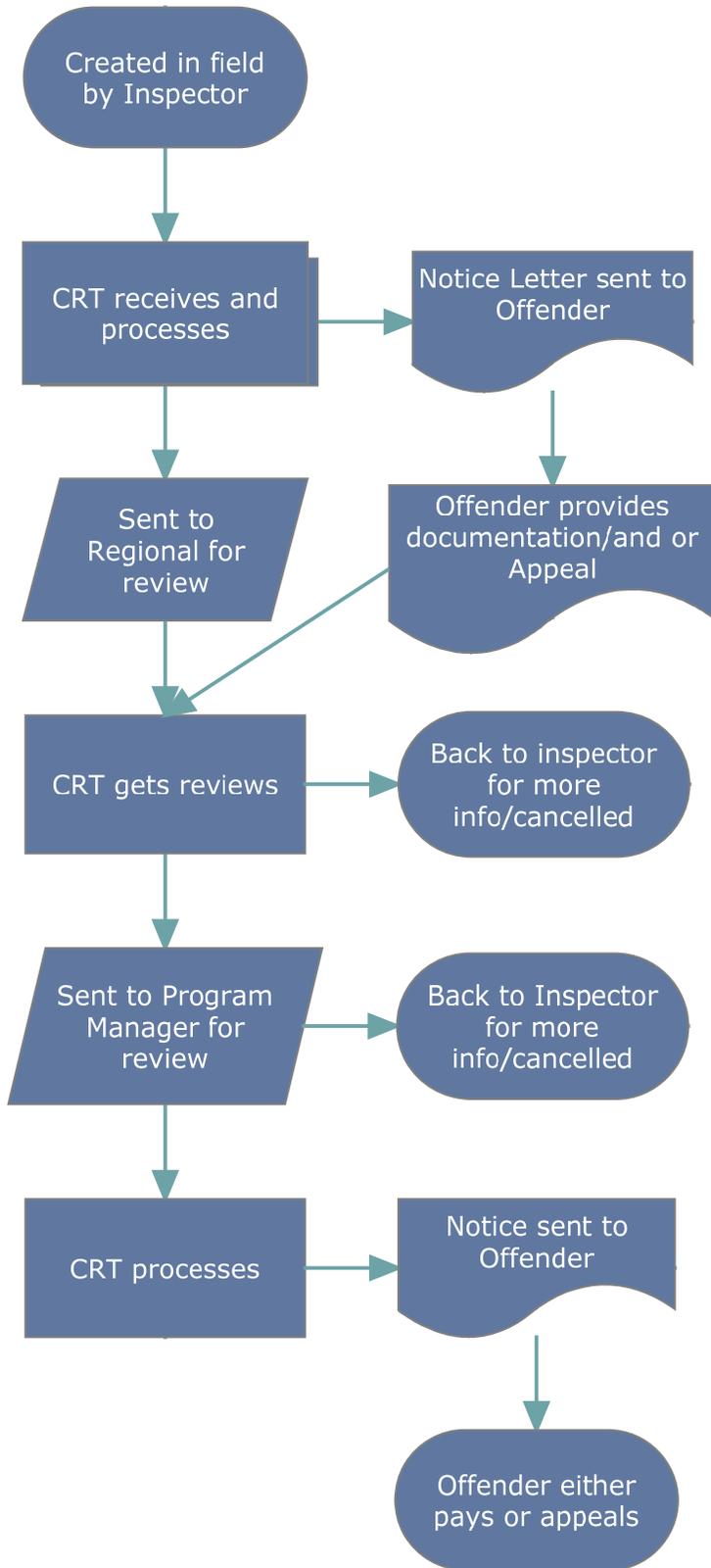
**PROCEDURAL HISTORY:**

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**ATTACHMENTS:** Chart

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# IDAHO ELECTRICAL BOARD

## Agenda Item No. 07

## Electrical Program Manager Report

**OBJECTIVE:** To update the Board on the Electrical Bureau's current activities.

---

**ACTION:** Informational

---

**BACKGROUND:** This topic is addressed at all regularly scheduled Idaho Electrical Board meetings.

---

**PROCEDURAL HISTORY:**

---

**ATTACHMENTS:** No documentation

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# IDAHO ELECTRICAL BOARD

**Agenda Item No. 08**

**Operational Report**

**OBJECTIVE:** To update the Board on the operations of the Electrical Bureau.

---

**ACTION:** Informational

---

**BACKGROUND:** This topic is addressed at all regularly scheduled Idaho Electrical Board meetings.

---

**PROCEDURAL HISTORY:**

---

**ATTACHMENTS:** No documentation

---



# IDAHO ELECTRICAL BOARD

**Agenda Item No. 09a**

**CAS Update**

**OBJECTIVE:** To inform the Board of current changes/updates to the Division's computer program.

---

**ACTION:** Informational

---

**BACKGROUND:** This topic is addressed at all regularly scheduled Idaho Electrical Board meetings.

---

**PROCEDURAL HISTORY:**

---

**ATTACHMENTS:** No documentation

---



# IDAHO ELECTRICAL BOARD

**Agenda Item No. 09b**

**Financial Report**

**OBJECTIVE:** To review the Idaho Electrical Board's Financial Report.

---

**ACTION:** Informational

---

**BACKGROUND:** This topic is addressed at all regularly scheduled Idaho Electrical Board meetings.

Definition of "Professional Services" – At the October 2010 meeting, Chairman Brown questioned what the topic "Professional Services" is and what it entails. Kirk Weiskircher is to research "Professional Services" and bring his findings to the January 2011 Board meeting.

---

**PROCEDURAL HISTORY:**

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**ATTACHMENTS:** Idaho Electrical Board Financial Report

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**Division of Building Safety**  
**ELECTRICAL BOARD FUND**  
 Fiscal Year 2011 Financial Statements  
 As of 11/30/2010

Statement of Revenues and Expenditures

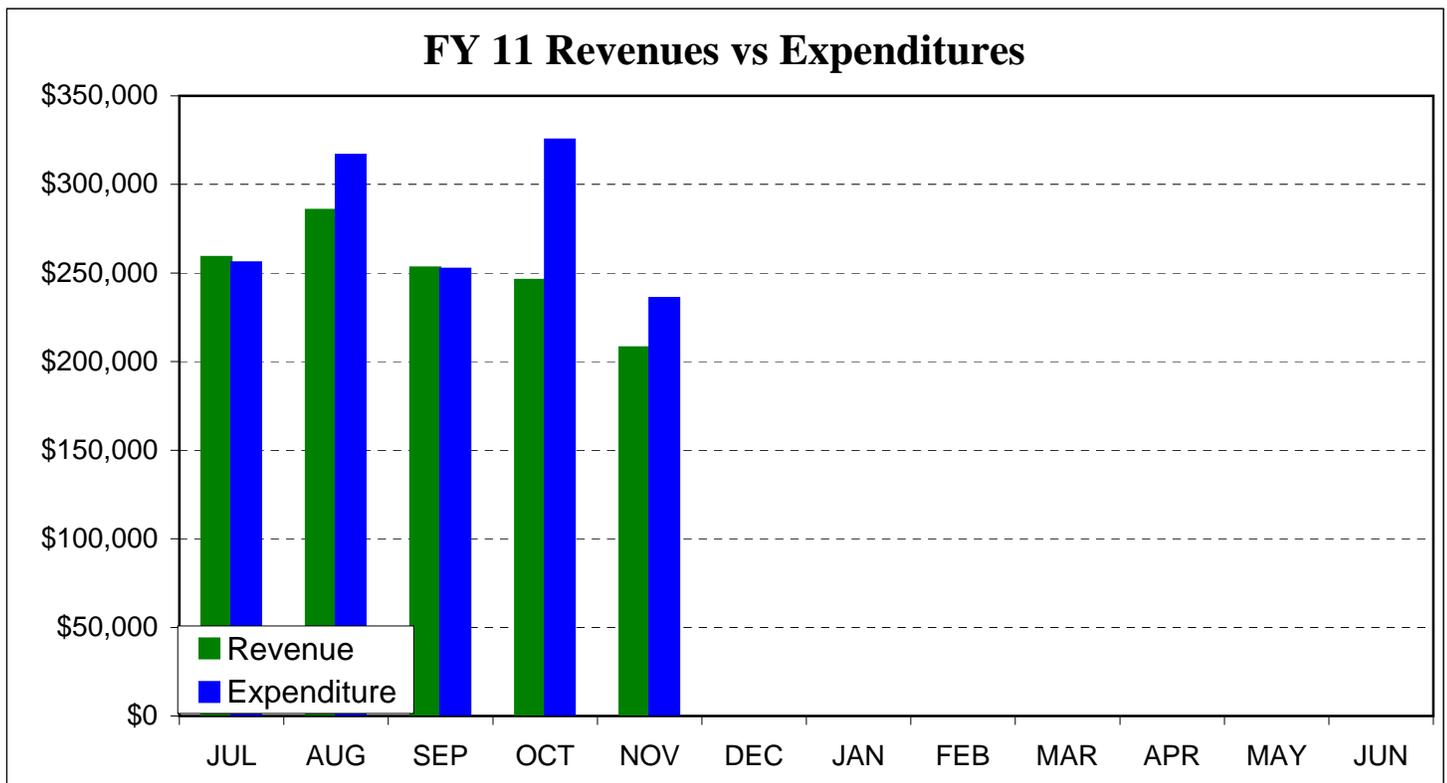
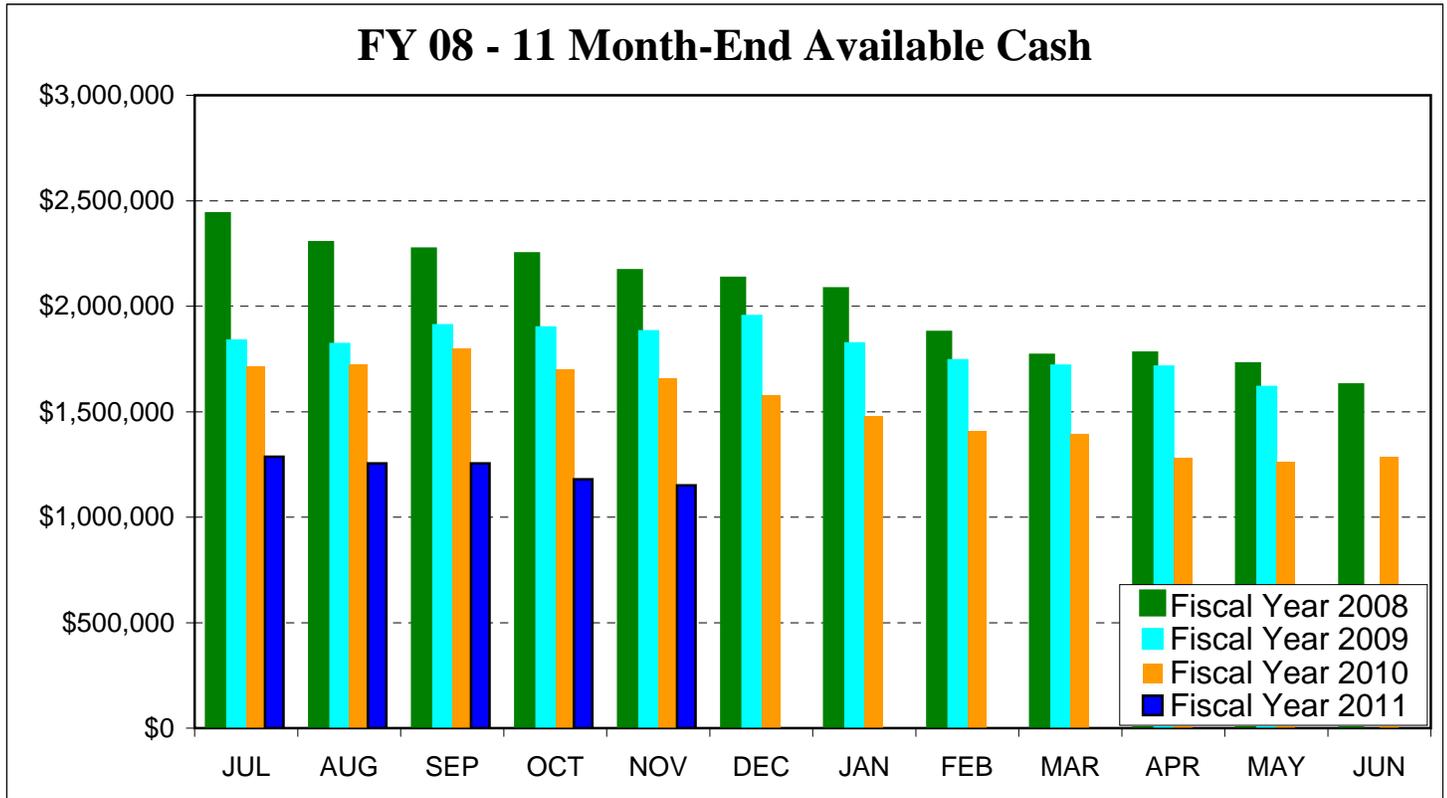
| Class              | Budget    | Fiscal Year To Date | YTD as a % of Budget * | Remaining Budget | Projected for Remainder of Year | Projected Year End Totals | Projected Total as a % of Budget |
|--------------------|-----------|---------------------|------------------------|------------------|---------------------------------|---------------------------|----------------------------------|
| Revenues:          | 2,625,000 | 1,251,442           | 47.7%                  | 1,373,558        | 1,447,000                       | 2,698,442                 | 102.8%                           |
| Expenditures       |           |                     |                        |                  |                                 |                           |                                  |
| Personnel:         | 2,610,000 | 1,061,333           | 40.7%                  | 1,548,667        | 1,336,800                       | 2,398,133                 | 91.9%                            |
| Operating:         | 594,000   | 311,265             | 52.4%                  | 282,735          | 308,000                         | 619,265                   | 104.3%                           |
| Capital:           | 70,000    | 13,170              | 18.8%                  | 56,830           | 60,000                          | 73,170                    | 104.5%                           |
| Total Expenditures | 3,274,000 | 1,385,769           | 42.3%                  | 1,888,231        | 1,704,800                       | 3,090,569                 | 94.4%                            |
| Net for FY 2011    | (649,000) | (134,327)           |                        |                  | (257,800)                       | (392,127)                 |                                  |

Statement of Cash Balance

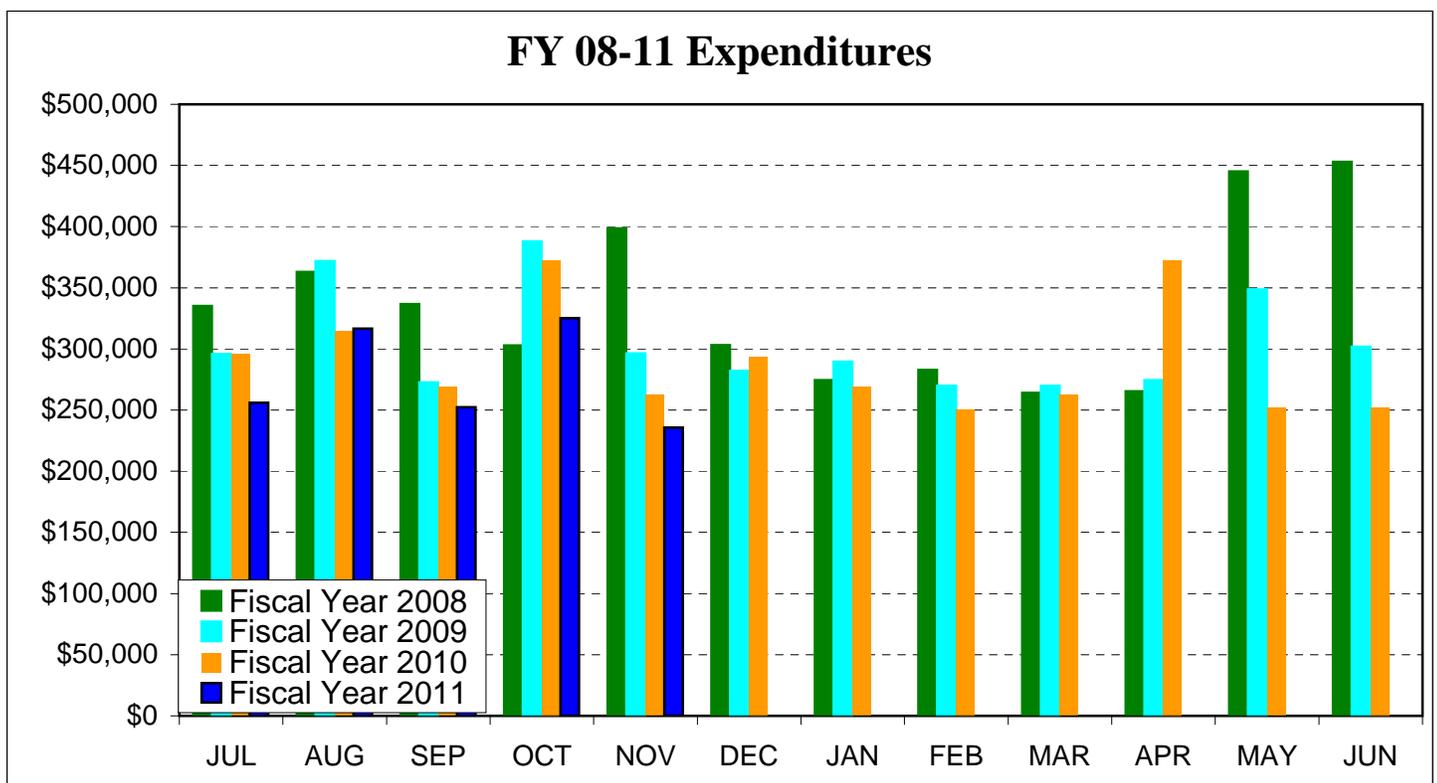
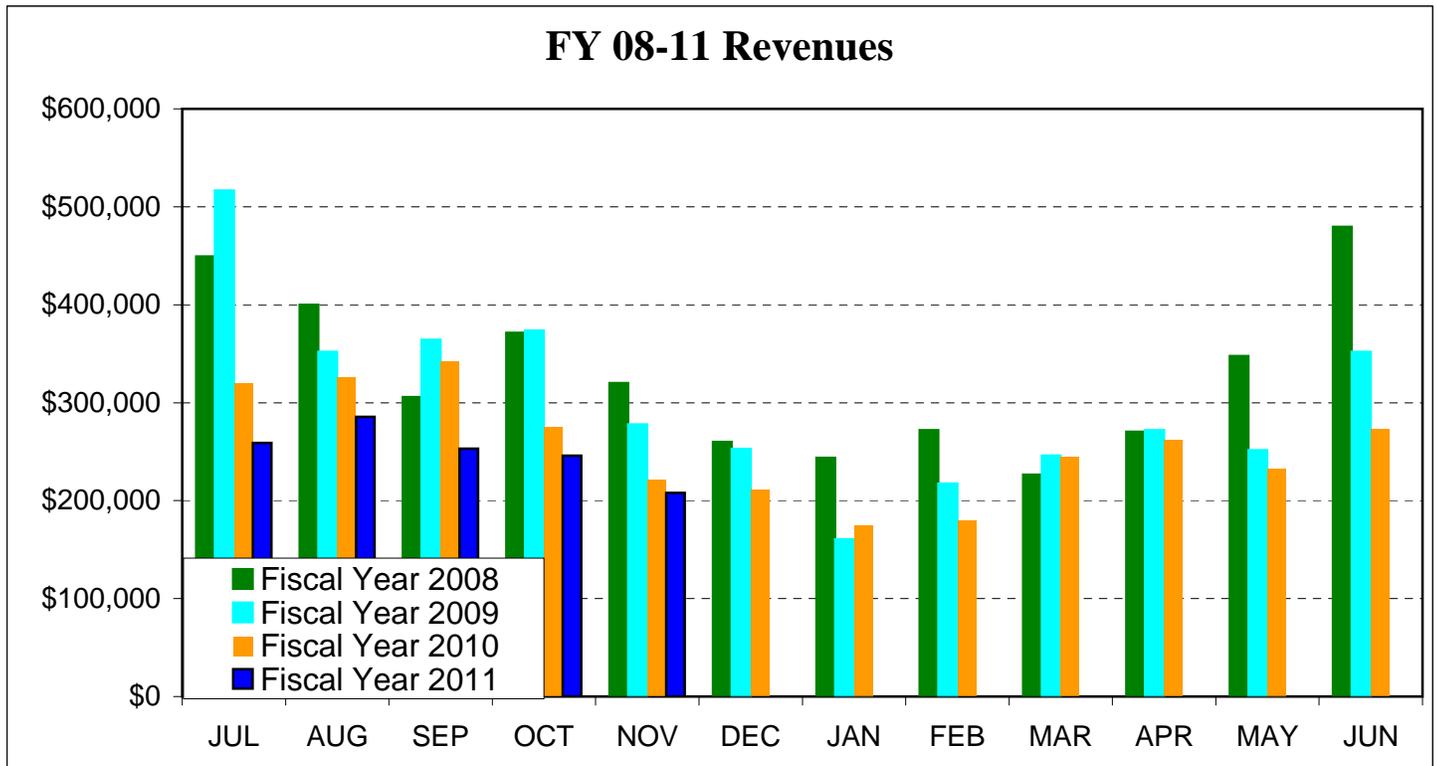
| July 1, 2010 Beginning Cash Available | Fiscal Year to Date Revenues | Fiscal Year to Date Expenditures and Encumbrances | Other Changes in Cash | Available Cash as of November 30, 2010 | Projected Change in Cash for Remainder of Year | Projected Year End Available Cash |
|---------------------------------------|------------------------------|---|-----------------------|--|--|-----------------------------------|
| 1,278,524                             | 1,251,442                    | (1,385,769)                                       | 6,113                 | 1,150,310                              | (257,800)                                      | 892,510                           |

\* Percent of Fiscal Year Completed      41.7%  
 Percent of Pay Periods Completed      42.3%

# ELECTRICAL BOARD FUND



# ELECTRICAL BOARD FUND



**FY 2011 REVENUE / EXPENSES**

**ELECTRICAL BOARD**

|                                      | <b>JUL</b>        | <b>AUG</b>        | <b>SEP</b>        | <b>OCT</b>        | <b>NOV</b>        | <b>DEC</b> | <b>JAN</b> | <b>FEB</b> | <b>MAR</b> | <b>TOTAL</b>        |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------|------------|------------|------------|---------------------|
| <b>Revenues</b>                      |                   |                   |                   |                   |                   |            |            |            |            |                     |
| REGULATORY LICENSES                  | 37,675.00         | 41,035.00         | 33,650.00         | 21,605.00         | 25,235.00         | -          | -          | -          | -          | 159,200.00          |
| INSPECTION FEE                       | 220,519.13        | 242,597.92        | 218,198.18        | 223,857.97        | 182,081.25        | -          | -          | -          | -          | 1,087,254.45        |
| FINES                                | 1,115.00          | 1,350.00          | 1,300.00          | 100.00            | 700.00            | -          | -          | -          | -          | 4,565.00            |
| OTHER - SALE OF VEHICLES, RENT, ETC. | (427.08)          | 476.26            | (45.00)           | 418.16            | -                 | -          | -          | -          | -          | 422.34              |
| <b>TOTAL REVENUE</b>                 | <b>258,882.05</b> | <b>285,459.18</b> | <b>253,103.18</b> | <b>245,981.13</b> | <b>208,016.25</b> | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>1,251,441.79</b> |
| <b>Expenditures</b>                  |                   |                   |                   |                   |                   |            |            |            |            |                     |
| <b>Personnel</b>                     |                   |                   |                   |                   |                   |            |            |            |            |                     |
| GROSS SALARY & WAGES                 | 146,056.45        | 140,812.26        | 142,148.72        | 208,425.55        | 143,002.67        | -          | -          | -          | -          | 780,445.65          |
| EMPLOYEE BENEFITS                    | 60,396.51         | 59,505.99         | 59,077.28         | 71,654.09         | 30,253.74         | -          | -          | -          | -          | 280,887.61          |
| <b>TOTAL PERSONNEL COSTS</b>         | <b>206,452.96</b> | <b>200,318.25</b> | <b>201,226.00</b> | <b>280,079.64</b> | <b>173,256.41</b> | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>1,061,333.26</b> |
| <b>Operating</b>                     |                   |                   |                   |                   |                   |            |            |            |            |                     |
| COMMUNICATION SERVICES               | 4,895.85          | 5,809.92          | 5,200.01          | 3,826.81          | 5,734.35          | -          | -          | -          | -          | 25,466.94           |
| EMPLOYEE DEVELOPMENT                 | 264.95            | (110.15)          | 302.00            | 3,081.75          | 2,578.50          | -          | -          | -          | -          | 6,117.05            |
| GENERAL SERVICES                     | 524.70            | 552.96            | 491.36            | 272.67            | 171.40            | -          | -          | -          | -          | 2,013.09            |
| PROFESSIONAL SERVICES                | 18.50             | 4,521.00          | 348.00            | (348.00)          | 7.00              | -          | -          | -          | -          | 4,546.50            |
| REPAIR & MAINT SERVICES              | 3,573.40          | 2,719.05          | 2,052.93          | 9,592.66          | 4,295.02          | -          | -          | -          | -          | 22,233.06           |
| ADMINISTRATIVE SERVICES              | 4.50              | 54.75             | 849.75            | 48.75             | -                 | -          | -          | -          | -          | 957.75              |
| COMPUTER SERVICES                    | 1,004.63          | 2,119.68          | 3,767.47          | 2,506.10          | 12,084.15         | -          | -          | -          | -          | 21,482.03           |
| EMPLOYEE TRAVEL COSTS                | 1,209.59          | 910.48            | 129.95            | 1,384.94          | 1,261.14          | -          | -          | -          | -          | 4,896.10            |
| ADMINISTRATIVE SUPPLIES              | 1,638.16          | 1,350.43          | 1,272.50          | 389.74            | 716.32            | -          | -          | -          | -          | 5,367.15            |
| FUEL & LUBRICANTS                    | 6,681.60          | 7,547.21          | 7,032.70          | 7,119.46          | 7,615.50          | -          | -          | -          | -          | 35,996.47           |
| COMPUTER SUPPLIES                    | 622.17            | 5,334.55          | 3,691.37          | 225.00            | 659.27            | -          | -          | -          | -          | 10,532.36           |
| REPAIR & MAINT SUPPLIES              | 16.00             | 36.98             | 91.36             | (35.40)           | 21.48             | -          | -          | -          | -          | 130.42              |
| SPECIFIC USE SUPPLIES                | 143.22            | 2,558.88          | 231.93            | 225.95            | 1,448.32          | -          | -          | -          | -          | 4,608.30            |
| INSURANCE                            | -                 | -                 | 2,138.53          | -                 | -                 | -          | -          | -          | -          | 2,138.53            |
| RENTALS & OPER LEASES                | 20,840.59         | 14,099.09         | 14,443.91         | 14,586.21         | 14,691.06         | -          | -          | -          | -          | 78,660.86           |
| MISC EXPENDITURES                    |                   |                   |                   |                   |                   |            |            |            |            |                     |
| CREDIT CARD FEES                     | 2,954.40          | 3,107.89          | 2,954.63          | -                 | 5,847.02          | -          | -          | -          | -          | 14,863.94           |
| PAYMENTS TO OTHER JURISDICTIONS      | 2,300.55          | 1,873.19          | 1,981.33          | 2,002.28          | 1,817.99          | -          | -          | -          | -          | 9,975.34            |
| GOVERNMENTAL OVERHEAD                |                   |                   |                   |                   |                   |            |            |            |            |                     |
| PAYMENTS TO OTHER STATE AGENCIES     | -                 | 60,025.35         | -                 | -                 | -                 | -          | -          | -          | -          | 60,025.35           |
| ADMIN RULE EXPENSE                   | 1,014.75          | -                 | -                 | 239.25            | -                 | -          | -          | -          | -          | 1,254.00            |
| OTHER                                | -                 | -                 | -                 | -                 | -                 | -          | -          | -          | -          | -                   |
| <b>TOTAL OPERATING COSTS</b>         | <b>47,707.56</b>  | <b>112,511.26</b> | <b>46,979.73</b>  | <b>45,118.17</b>  | <b>58,948.52</b>  | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>311,265.24</b>   |
| <b>Capital Outlay</b>                |                   |                   |                   |                   |                   |            |            |            |            |                     |
| COMPUTER EQUIPMENT                   | -                 | 801.60            | 4,154.02          | -                 | -                 | -          | -          | -          | -          | 4,955.62            |
| MOTORIZED EQUIP                      | 1,710.00          | -                 | -                 | -                 | -                 | -          | -          | -          | -          | 1,710.00            |
| SPECIFIC USE SUPPLIES                | -                 | 3,011.06          | -                 | -                 | 3,493.45          | -          | -          | -          | -          | 6,504.51            |
| <b>TOTAL CAPITAL OUTLAY</b>          | <b>1,710.00</b>   | <b>3,812.66</b>   | <b>4,154.02</b>   | <b>-</b>          | <b>3,493.45</b>   | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>13,170.13</b>    |
| <b>TOTAL FY 2010 EXPENDITURES</b>    | <b>255,870.52</b> | <b>316,642.17</b> | <b>252,359.75</b> | <b>325,197.81</b> | <b>235,698.38</b> | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>-</b>   | <b>1,385,768.63</b> |

**REVENUE / EXPENSES**

12/20/2010

**For the 5 months ended November 30th**

**ELECTRICAL BOARD**

|                                 | FY 2011             | FY 2010             | FY 2009             | FY 2008             | FY 2007             |
|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Revenues</b>                 |                     |                     |                     |                     |                     |
| REGULATORY LICENSES             | 159,200.00          | 234,847.00          | 156,846.49          | 191,211.02          | 229,298.10          |
| INSPECTION FEE                  | 1,087,254.45        | 1,238,168.15        | 1,693,637.42        | 1,596,811.36        | 1,789,225.56        |
| FINES                           | 4,565.00            | 9,910.00            | 9,817.50            | 28,038.84           | 55,602.50           |
| OTHER - VEHICLES, RENT, ETC.    | 422.34              | 590.00              | 23,571.59           | 30,083.89           | 91,811.00           |
| <b>TOTAL REVENUE</b>            | <b>1,251,441.79</b> | <b>1,483,515.15</b> | <b>1,883,873.00</b> | <b>1,846,145.11</b> | <b>2,165,937.16</b> |
| <b>Expenditures</b>             |                     |                     |                     |                     |                     |
| <b>Personnel</b>                |                     |                     |                     |                     |                     |
| GROSS SALARY & WAGES            | 780,445.65          | 884,297.50          | 964,834.80          | 1,009,723.39        | 974,294.00          |
| EMPLOYEE BENEFITS               | 280,887.61          | 345,533.86          | 371,825.92          | 362,723.77          | 325,319.69          |
| <b>TOTAL PERSONNEL COSTS</b>    | <b>1,061,333.26</b> | <b>1,229,831.36</b> | <b>1,336,660.72</b> | <b>1,372,447.16</b> | <b>1,299,613.69</b> |
| <b>Operating</b>                |                     |                     |                     |                     |                     |
| COMMUNICATION SERVICES          | 25,466.94           | 35,220.45           | 46,156.51           | 57,552.23           | 55,080.92           |
| EMPLOYEE DEVELOPMENT            | 6,117.05            | 1,400.88            | 5,861.11            | 12,368.00           | 5,711.11            |
| GENERAL SERVICES                | 2,013.09            | 3,439.39            | 14,932.57           | 30,662.12           | 6,005.32            |
| PROFESSIONAL SERVICES           | 4,546.50            | 45.67               | 4,621.60            | 17,844.23           | 35,635.52           |
| REPAIR & MAINT SERVICES         | 22,233.06           | 17,638.28           | 16,026.92           | 26,459.17           | 27,201.13           |
| ADMINISTRATIVE SERVICES         | 957.75              | 254.44              | 823.62              | 272.71              | 2,244.08            |
| COMPUTER SERVICES               | 21,482.03           | 6,797.94            | 8,568.80            | 1,332.59            | 4,619.96            |
| EMPLOYEE TRAVEL COSTS           | 4,896.10            | 8,736.91            | 10,274.59           | 14,770.45           | 21,948.76           |
| ADMINISTRATIVE SUPPLIES         | 5,367.15            | 4,749.96            | 7,614.78            | 25,004.90           | 25,559.60           |
| FUEL & LUBRICANTS               | 35,996.47           | 36,209.15           | 55,378.87           | 52,407.35           | 47,427.22           |
| COMPUTER SUPPLIES               | 10,532.36           | 7,836.63            | 3,855.31            | 56,935.04           | 24,282.17           |
| REPAIR & MAINT SUPPLIES         | 130.42              | 223.40              | 257.95              | 1,732.36            | 3,984.14            |
| SPECIFIC USE SUPPLIES           | 4,608.30            | 1,017.04            | 1,044.67            | 3,853.16            | -                   |
| INSURANCE                       | 2,138.53            | 5,247.43            | 8,965.74            | 8,103.89            | -                   |
| RENTALS & OPER LEASES           | 78,660.86           | 74,127.06           | 16,739.26           | 12,277.59           | 140,922.96          |
| CREDIT CARD FEES                | 14,863.94           | 10,687.49           | 3,120.58            | 2,352.96            | 1,801.22            |
| PAYMENTS TO OTHER JURISDICTIONS | 9,975.34            | 14,801.07           | 12,059.80           | -                   | -                   |
| GOVERNMENTAL OVERHEAD           |                     |                     |                     |                     |                     |
| PAID TO OTHER STATE AGENCIES    | 60,025.35           | 52,111.93           | 31,493.88           | 32,559.10           | 28,607.83           |
| ADMIN RULE EXPENSE              | 1,254.00            | 2,636.08            | 1,118.88            | 1,999.20            | 1,839.39            |
| AWARDS AND RECOGNITION          | -                   | 204.96              | 110.55              | 173.15              | 221.75              |
| <b>TOTAL OPERATING COSTS</b>    | <b>311,265.24</b>   | <b>283,386.16</b>   | <b>249,025.99</b>   | <b>358,660.20</b>   | <b>433,093.08</b>   |
| <b>Capital Outlay</b>           |                     |                     |                     |                     |                     |
| COMPUTERS, VEHICLES & EQUIPMENT | 13,170.13           | -                   | 38,293.11           | 4,762.00            | 9,022.77            |
| <b>TOTAL CAPITAL OUTLAY</b>     | <b>13,170.13</b>    | <b>-</b>            | <b>38,293.11</b>    | <b>4,762.00</b>     | <b>9,022.77</b>     |
| <b>TOTAL FY EXPENDITURES</b>    | <b>1,385,768.63</b> | <b>1,513,217.52</b> | <b>1,623,979.82</b> | <b>1,735,869.36</b> | <b>1,741,729.54</b> |

# IDAHO ELECTRICAL BOARD

**Agenda Item No. 09c**

**Administrator**

**OBJECTIVE:** To provide the Board with an overview of the Division's current activities.

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**ACTION:** Informational

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**BACKGROUND:** This topic is addressed at all regularly scheduled Idaho Electrical Board meetings.

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**PROCEDURAL HISTORY:**

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**ATTACHMENTS:** No documentation

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