



RELAY

ELECTRICAL CONTRACTORS ASSOCIATION OF BRITISH COLUMBIA

Construction safety association close to offering first courses

If all goes as expected, the province's first and only broad-based safety association devoted to the construction industry will begin offering courses for workers, supervisors, and owners/managers in January 2004.

The Boards of Directors of the Construction Safety Association of BC (CSABC) and the Council of Construction Associations (COCA), which was instrumental in establishing the CSABC, approved a strategic plan in July. Grant McMillan, President of



Grant McMillan

COCA, is hopeful that the Board of Directors of the Workers Compensation Board will approve a request for operational funding by late in the Fall. In the meantime, at its August meeting, the Board considered a series of recommendations arising out of the strategic plan, key among them the creation of a new WCB section that will focus solely on construction industry claims and return to work (which would be a first in Canada, as far as McMillan knows), and the permanent secondment of two WCB positions (claims manager and prevention officer) to work directly with the CSABC.

Once funding and other approvals have been obtained, the CSABC will

hire a program manager whose job will be to hire trained instructors (on a contract basis) and roll out the courses by the planned January start dates. The claims manager and prevention officer positions will also go into effect at that time. McMillan has little doubt that the WCB will give the go ahead, given the

widespread support the safety association has received since industry first began to consider its implementation two years ago. "I fully anticipate that the WCB will approve the overall plan and the funding request, because they

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Contractor celebrates 30 successful years in business



BC Hydro's McLeese Lake Capacitor Station Upgrade, near Williams Lake, June 2003.

Long-time ECABC member Western Pacific Enterprises (WPE) is celebrating its 30th anniversary as one of BC's most successful electrical contractors.

Established by partners Ernie Moore and Dieter Fettback in July of 1973, the company started out in a rented warehouse in North Vancouver with a handful of employees and Dieter's wife, Marlene, who volunteered as office

Ernie Moore & Dieter Fettback, founders of WPE.

manager while the firm got on its feet.

Hal Moore, who has been there since the beginning and who, along with Dave, Ron, Mark, and Wayne Fettback is part of the second generation that now manages WPE, says the company has maintained its historical focus on

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SPECIAL ANNUAL REPORT EDITION see page 3

Proposed regulations not a good fit with electrical industry

by ECABC, in conjunction with Dowler Consulting

The recently released drafts of the proposed new Safety Standards General Regulations and Electrical Safety Regulations reveal a basic shift in philosophy for the administration of public safety in the province of British Columbia.

The existing Electrical Safety Act and Regulations regulated safety by stipulating that only fully qualified electricians or apprentices could perform electrical work. The approach to regulating safety that has been taken by the new regulations is to ensure that electrical work would be supervised by trained or partially trained individuals, and could be done by virtually anyone. Indications are that the Ministry of Advanced Education and the new Industry Training Authority Act will facilitate these changes. This shift effectively removes government from the roll of specifying who can do the work, to the roll of specifying who is responsible for the work after it is done. We view this as an abdication of responsibility, which will result in a degradation of safety and public confidence in the system.

The only checks and balances proposed are limited work supervision and monetary penalties for code and safety breeches. ECABC believes the subjective requirements for supervision would be very difficult to enforce. Further, we doubt that penalties, regardless of how severe they are, will be much of a deterrent and that unscrupulous contractors would simply view them as a cost of doing business.

Poorly paid workers with little or no skills or training will replace hundreds of highly skilled, fully trained electricians. Few apprentices will be indentured and trained because contractors will be forced to employ cheap labour to

remain competitive. Apart from the compromises to worker and public safety, the long-term effect will be a severe shortage of fully qualified and certified electricians because there will be few apprentices to follow them.

Effective January 1, 2003, California finally implemented Compulsory Certification for all persons performing electrical work. This was done primarily in response to the proliferation of fires and electrocutions, however it was also viewed as a means of addressing a serious skills shortage.


Government has stated that we are over regulated and that ineffective and unnecessary regulations must be eliminated. We agree that we may be over regulated in many areas, but believe that public safety isn't one of those areas. Special interest groups, not representing the construction industry, claim that a potential skills shortage justifies using workers with minimal skills or training. However, the electrical contracting industry has never had a problem attracting and training young people with an apprenticeship system that is unequalled anywhere in the world. The industry has been able to do this because of, not in spite of the high qualifications demanded by the industry. (These same groups characterize this as a union vs. non-union issue. The reality is that these regulations affect all electrical contractors equally. A recent industry poll conducted by ECABC, supports our view that the large majority of contractors wish to employ fully qualified electricians and apprentices, as opposed to partially or untrained workers.

It has also been suggested that the electrical industry is only interested in maintaining the status quo. This asser-

tion is also incorrect. We believe that government's objectives can be reached in more constructive ways. For example, apprentice to journeyman ratios could be adjusted from the current ratio of one to one, to allow more individuals to enter the trade. A separate, less stringent qualification could be created for residential electricians such as they have in California, Ontario and other regions. A greater effort could be made to encourage young people in high school to pursue a trade as a career. These are several of many things that could be done, without resorting to deskilling or splintering the trades.

The electrical contracting industry in B.C. has long fulfilled its mandate to install complex electrical systems in a safe and timely manner. The industry's excellent safety record has earned the respect and confidence of the public. We believe that the change in direction currently being considered by government will seriously hamper our ability to maintain this enviable record.

If you share our concerns about what is being proposed, we would urge you to contact your local MLA or ECABC for more information, and add your name to the growing list of people and companies who see this as a threat to the future of the electrical contracting industry and the safety of all British Columbians.

In the recent decision by the government to not proceed with a proposal to lease the Coquihalla Highway to a private partner, Premier Gordon Campbell stated: "We had a good business plan that made a poor public case." We suggest that these regulations make neither a good business plan or public case. 

The Electrical Contractors Association of BC is a non-profit society comprised of approximately 150 member companies located throughout the province. Governed by a Board of Directors that represents each major region of BC, the association also has established regional chapters that serve as vehicles for discussion of local industry issues and maintaining liaison with local officials.

Since its establishment in 1953, member representation has been the Association's top priority. A key way this is achieved is through representation on a variety of industry and government committees that address issues of importance to the electrical and construction industries (e.g., electrical industry legislation, contractor qualifications and certification, trade practices, and apprenticeship and trades training).

The Association also offers a range of direct member services designed to assist contractors with the day-to-day management of their companies. These include a group benefit plan, a Salaried Employees Training Trust Fund, a library of technical publications, the *Health and Safety Policy Manual*, the *Seismic Restraint Standards Manual*, and the *Membership and Industry Directory*. To keep members up-to-date on events and issues ECABC publishes *The Relay and Conduit* (formerly, *Update*) newsletters.

On the industry front, the previous year again saw the Association devote considerable time and effort toward training and legislative issues associated with changes proposed by the

provincial government (see President's, Executive Director's messages, pages 3 & 4). For example, along with 14 other construction associations, ECA endorsed an industry-based training model designed to fill the gap left by the demise of the Industry Training and Apprenticeship Commission, by delivering relevant, cost effective, and flexible training. ECA also continued its work to achieve an Electrical Safety Act and Regulation that will better reflect industry needs and priorities while protecting both worker and public safety.

Through its membership on the Council of Construction Associations, ECABC and other members of COCA were successful in persuading the Workers Compensation Board to continue to cap the Experience Rating System for employers in the construction industry at 33.3%. The 3-year pilot project was initiated largely as a result of COCA lobbying.

As always, Board members, individual contractors, and staff continued their efforts to increase membership and enhance member services. These efforts again proved rewarding, as 17 new members joined the Association. And, for the fifth consecutive year, contractors and IBEW 213 tradespeople donated time and equipment to the *Lights of Hope* fundraising campaign, sponsored by the St. Paul's Hospital Foundation. The ECA/IBEW contribution-in-kind amounted to approximately \$20,000 in equipment and labour and was once again instrumental to the event's success. 



HALL OF FAME 2003

As in previous years, a highlight of the Annual General Meeting and Convention was the Hall of Fame Banquet, during which ECABC members were recognized for their outstanding contributions to the Association and the electrical industry as a whole. The 2002-2003 inductees were (clockwise from left to right) contractor **Wayne Dowler**, former executive director **Cliff Pilkey**, and contractor **Gerry Lane**. Presenting the awards was ECA President **Bob Leese**.

BOARD OF DIRECTORS 2003/2004

PRESIDENT: Robert Leese,
Ainsworth Inc., Coquitlam

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Gerald Reinders,
Bridge Electric Corp., Richmond



Above & bottom of page 5: Scenes from this year's convention.

PRESIDENT'S REPORT

During the past year, my first as President of ECABC, we continued to address a number of legislative and training challenges that faced the electrical industry, key among them, proposed Equivalent Standards Agreements (ESAs) within the Electrical Safety Standards Act and the Electrical Safety Regulation.




The Heavy Industry sector of the construction industry has been lobbying government for ESAs for several years now, believing that they will provide the flexibility the sector needs to remain competitive in world markets. We are concerned, however, that, without proper checks, ESAs could be extended to other sectors within the construction industry; accordingly, we pressed for limitations to their application and scope. As of this report, the matter was unresolved.

We also continued to put forward our suggestions for changes with respect to the proposed narrowing of the definition of work within the Electrical Safety Regulations. We remain very concerned that the proposed definition could result in a greatly diminished role for our apprentices, will compromise worker and public safety, and will have long term consequences for our trade.

Another focus during the year was the new Industry Training Authority Act, which is enabling legislation for the new Industry Training Authority Board. A number of ECABC rep-

resentatives have been nominated to serve on the new Board. In a related activity, we, along with 14 other construction industry associations endorsed an industry driven training model that we believe best reflects industry needs and priorities, and will be a more effective alternative to the provincial government model, released in a discussion paper early in the year. The government's proposed model could well result in a serious long-term shortage of workers with full trade qualifications.

Closer to home, I am pleased to report that our continuing efforts to rebuild the Association's membership base once again had positive results. Last year, we welcomed 14 Regular and 3 Associate members to the Association.

In closing, I would like to thank the Board of Directors and the many contractors who volunteered their time during the year to various ECA committee and other activities. Their willingness to be involved was integral to our success as an Association. I also want to thank our Executive Director, **Richard Campbell**, for his assistance and advice throughout the year, and our new Administrative Co-ordinator, **Zana Gordon**. I look forward to my second term as President and continued success for ECABC. 

Robert Leese

EXECUTIVE DIRECTOR'S REPORT


As noted by our President, **Bob Leese**, the previous year was once again marked by numerous challenges associated with sweeping changes proposed by the provincial government that will have a direct impact on the electrical industry. In this regard, I believe that the future of the electrical contracting industry now hinges on two key issues: compulsory certification and scope of work, areas that received much of our attention during the year. For example, we worked closely with the Electrical Safety Advisory Committee to gain its support for a number of proposals that we believe will benefit workers, the industry, and the general public. These included:

- That the ESAC ensure that all who perform electrical work are properly trained and qualified to do so;
- That existing restrictive worker qualification certificates be retained, and that the electrical industry retain its designation as a compulsory certified trade.
- That a registrar for all persons certified to perform regulated electrical work be established and maintained by the Safety Authority for purposes of enforcement; and
- That the current 1:1 journeyman/apprentice ratio be specified in the Electrical Safety Regulations, with the proviso that the ratio could be adjusted at the discretion of the Safety Authority, in conjunction with the Electrical Safety Advisory Committee (ESAC), to ensure an adequate supply of fully qualified electricians.

I am optimistic that these proposals for training and certification will become part of the new safety regulations that will govern our industry, thereby ensuring worker and public safety and public confidence in the system.

Last year also marked an important milestone in the history of our Association, as we celebrated our 50th anniversary as the voice of BC's electrical industry. We are the only association in BC dedicated to the interests of all electrical contractors in the province, and we will continue to work to enhance member services, attract new members, and increase our sphere of influence.


As I look to the coming year, I am confident that our ongoing efforts to represent our contractors and attract new members will continue to have positive results. Our industry is facing interesting and challenging times, but together we can continue to be a strong force that makes a difference in the industry.

In closing, I would like to extend my thanks and appreciation to the Board of Directors and to President **Bob Leese**, for their continuing support. I also want to formally introduce our new Administrative Coordinator, **Zana Gordon**, who replaced **Sandra Kschischang**, who left ECA to pursue other interests. In the short time that Zana has been with us she was demonstrated excellent skills, resourcefulness, and people skills. I look forward to another positive year for ECA. 

Richard Campbell



Voltage detector can prevent electric shock

The Workers Compensation Board of BC notes that, on average, three BC workers die and 80 more are injured (often seriously) each year from electrical contact involving high voltages (usually high-voltage power lines) and low voltages (750V or less). Use of a non-contact voltage tester can reduce the rate of such accidents, the WCB says, because the devices warn workers that exposed AC electrical equipment is live without requiring physical contact. The voltage testers detect the alternative electric field even if no current is flowing and give off visual and/or audible signals up to one metre from the electrical source. 


Worksafe, August 2003

Heat distress disorder can happen anytime

Although summer heat is the most frequent cause of heat distress disorder, it can happen anytime workers are exposed to confined areas such as vaults, overhead spaces with limited ventilation, and any confined area that


involves welding or cutting. Symptoms start slowly (e.g., headache, thirst, tiredness) and increase in intensity (immense thirst, dehydration, dry/hot skin, collapse) if precautions aren't taken. The most dangerous consequence is heat stroke, where the body's natural cooling system breaks down and causes the body core temperature to rise and overheat the brain. The key to reducing the risks is early recognition of hazards and symptoms.

For example:


- Remove any employee who appears to be experiencing heat stress and find her or him a cool, shaded place to rest. If the employee is disoriented or non-responsive, call for medical attention immediately.
- Rotate employees from exposed to non-exposed areas on a regular basis;
- Encourage employees to drink plenty of fluids to replace electrolytes, but to avoid carbonated beverages such as soft drinks, which actually increase dehydration and give a false sense of being properly hydrated. 

NECA: Toolbox Talk

MORE YOUNG WOMEN AND MEN NEEDED

In an article in the *Vancouver Sun* (July 23, 2003) the First National Vice-Chairwoman of the Canadian Construction Association (CCA) said she plans to step up recruitment of young people – and young women in particular – in order to ensure there are sufficient skilled trades workers for now and the future. Shirley Westeinde, co-owner of Westeinde Construction in Ottawa, says it will be important to get out the message that the building trades offer excellent career opportunities for young men and young women alike. If, as expected, Westeinde takes over as head of the CCA early next year, she will be the first woman to lead the 15,000 member association. 

NAME CHANGE AT WCB

The workers compensation board has renamed its Ombudsman Office to the WCB Complaints office. The independent office deals with issues of perceived unfairness regarding WCB decisions and recommendations. Call 604-276-3053 (toll free 1 800 335-9330). Contact is confidential. 

WEBSITE READY!


ECA's Website will be operational as of the end of August.

Visit us at: www.eca.bc.ca 



CECA CONVENTION A strong contingent of ECABC contractors and their spouses attended this year's Canadian Electrical Contractors Association in St. John's, Newfoundland and Labrador. A highlight of the convention was the time-honoured local "Screech" tradition: If you kiss the cod and down the Screech (not the smoothest drinking experience, to be sure!) you get to be an honorary member. Pictured are among the newest proud initiates of the club.

BC had the lowest proportion of cigarette smokers in Canada in 2002. 16 percent of people aged 15 and over are smokers, significantly below the national average of 21%. The highest smoking rates were in Quebec (26%) and Nova Scotia (25%). In BC, men are more likely to smoke than women (19% vs 14%) and almost half of current smokers have unsuccessfully tried to quit in the past – 34% have tried 1-3 times; 11% have quit on 4 or more occasions. For Canada as a whole, smoking is strongly related to socio-economic status; only 13% of people with a university degree are current smokers. Among those who never completed high school, 24% are current smokers.

The number of information technology and communication workers (ITC) in BC rose 80% between 1990 and 2000. Even so, ITC workers still account for only 3.5% of the workforce, although this is a noticeable increase from 1990 (2.4%). Ontario is the centre for ITC employment, with 5.5% of its workforce employed in the sector. Ontario has also seen the highest growth of ITC jobs over the last decade (+95%). Quebec, followed by BC, rank second and third. The ITC sector is concentrated in large urban sectors. In BC, Vancouver (85%) and Victoria (8%) are home to most of the workers. 

SOURCE: BC STATS INFOLINE

Alliances have made the difference


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industrial and commercial projects, although it also offers a range of data systems-related services.

Describing WPE's beginnings, Moore said that both Ernie Moore and Dieter Fettback (who, sadly, died recently) had many years of experience with high profile industrial plants, pulp mills and the like, and decided to put that expertise to use when they struck out on their own. Today, WPE has grown to 120 employees and has been involved with some of BC's highest profile projects. For example, in 2000 the company won the Vancouver Regional Construction Association the (VRCA) Award of Excellence for the Electronic Arts building (a project with PCL construction); and was the 2001 recipient of VRCA's Award of Excellence for electronic data and communications for the new BC Gas head office in Surrey.

Current projects include the Skytrain Millennium Line guideway cable installation; the Surrey City Centre tower and podium (with PCL); the cruise ship terminal expansion (with

the Dominion Company); MCI World One Telecommunications host centre (with Parkwood Construction); various Skytrain stations; and communication system upgrades for the Kelowna General Hospital and the Penticton Regional Hospital.

Asked what has been the key to the company's long-term success, Moore said that without question, WPE's strong alliances with general contractors such as PCL and Dominion have made the difference. "Over the years we have focused on being team players with these and other general contractors. We see ourselves as partners," he said, adding that that philosophy has helped WPE to survive and prosper during even the toughest economic times – including the recession in the early 1980s, when interest rates reached double digits. In turn, he said, PCL and other partners know they can count on the highest quality of work and, equally important, ongoing service. "For us, it has never been just about the dollars," says Moore. "Service is very important." 

In each issue of *The Relay*, Ted Simmons, Chief Electrical Instructor at the British Columbia Institute of Technology, provides examples of technical questions of interest to the industry. This issue, Ted looks at the requirements for transformer system grounding conductors. If you have any comments or questions regarding this article, please contact Ted via e-mail at: tsimmons@bcit.ca


How to determine the size required for a transformer system grounding conductor.

SCENARIO An electrical contractor has installed a 45KVA transformer to supply a 120/208V, 3 phase, 4 wire panelboard. The primary circuit on the transformer is supplied at 600V, 3 phase and a 4 conductor #2/0 teck cable is installed to connect the secondary circuit of the transformer to the 120/208V panelboard.

The calculated full load amp (FLA) rating for the transformer secondary circuit is 125 amps. i.e. $45\text{KVA} \div 208\text{V} \div \sqrt{3} = 125$ amps. The contractor uses the 125 amp FLA to determine the minimum size required for the system grounding conductor and installs a No. 6 AWG copper conductor.

The Inspector rejects the installation and indicates on the inspection certificate that it does not comply with Rule 10-206(1)a and Table 17.

QUESTION *Was the Inspector correct?*

ANSWER Yes. Rule 10-206(1)a states: that the grounding conductor shall not be smaller than that specified in Table 17. When using Table 17, it is extremely important to recognize the grounding conductor size is determined according to the ampacity of the largest service conductor which in this case is the ampacity of the 2/0 secondary conductors. As indicated in column 4 of Table 2, the 2/0 conductors have an ampacity of 185 amps. According to Table 17, if the ampacity of the service conductors is between 166A and 200A, a No. 3 AWG copper grounding conductor must be installed to ground the secondary system. 

UPCOMING EVENTS

CHAPTERS MEET

ECA's Vancouver Island Chapter meets September 11. The Vancouver Chapter meets at the Accent Inn in Burnaby September 17.

GOLF TOURNEY

The Vancouver Chapter is sponsoring a golf tournament at the Country Meadows Golf Course in Richmond, Sept. 19.

SEMINAR

The *Reality of Change Orders* seminar will be held September 23 in Victoria at the Harbour Towers Hotel and September 24 at the Executive Hotel in Burnaby.

Contact Zana at ECA (604)294-4123 for more information about these events.

LIGHTS OF HOPE

Planning for the 2003 *Lights of Hope* fundraiser is underway. Last year, over 400 companies donated nearly \$400,000 in products and services to the annual

campaign, sponsored by the St. Paul's Hospital Foundation. Contact the Foundation at 604-682-8206 or email jnorris@providencehealth.bc.ca.

BCEA EVENTS

- September 11: Breakfast meeting with Gary Livingstone, President and CEO of the Mining Association of BC. Radisson Hotel, Burnaby.
- October 2: Electrical Showcase 2003 at the Abbotsford Tradex centre, from 1 p.m. to 7 p.m.
- November 14 is Family Bowling Night at the Revs Bowling Centre

For more information contact BCEA at 604-291-7708 .

NECA CONVENTION

The 2003 NECA Convention will be held in Orlando, Florida, October 1 to 4. Information is available at the website: www.necaconvention.org. 

ECA member apprentice "medals" again!



ECA President Bob Leese and Skills Canada winner Andrew Watt.

Following up on last year's gold medal performance (*Relay*, Fall 2002), electrical apprentice Andrew Watt won a silver medal in the electrical wiring category at this year's Skills Canada competition. Watt is a BCIT student employed by ECA member Canem Systems who, along with ECA, sponsored his trip to the competition, held this past June in Waterloo, Ontario. All told, over 400 competitors from eight provinces and three territories took part. Watt was one of five BCIT students who took home honors. The others were:

- Erik Toorenburgh of Port Moody, a graduate of the refrigeration mechanic entry level program and a gold medal winner in the refrigeration category.
- John Rosse of Vancouver, a fourth-year plumber apprentice who won a gold medal for plumbing.
- Brian Semple, a graduate of the aircraft maintenance program who won a silver medal for aircraft maintenance; and
- Booker Hadley of Surrey, a third-year joinery apprentice who won a bronze medal for cabinet making.

Congratulations to all of the winners! 

Courses emphasize accessibility

Continued from page 1

have been so positive about this from the beginning," said McMillan, who acknowledged Chair Doug Enns, President Ralf McGinn, Vice-President Roberta Ellis and Manager Don Nelson from the prevention division, among many others, for their support, advice and assistance throughout the development process.

Neither does McMillan have any doubts about the long term prospects for the CSABC: "What we're about to do is a very exciting prospect that I am convinced will significantly reduce the duration and cost of accidents over the next two to three year period," he said, adding that an equally important benefit of the new system will be improved working relationships with the WCB, within a new climate of cooperation and consultation.

The three courses to be offered (developed in close consultation with the WCB and industry representatives) will be a 2-day supervisor's program and

two, half-day courses; one for workers and one for owners/senior managers. They will be offered in about 25 centres throughout BC and at times that fit local requirements - including evenings and weekends.

At approximately \$50 for the half-day courses and \$145 for the supervisor's courses, the program is designed to be accessible to as many companies as possible (especially smaller firms) in terms of both cost and time required - two critical considerations for success.

Key aims of the CSABC (whose Board of Directors includes ECABC members Mott Electric and Bridge Electric) include to provide standardized, provincially recognized training; promote more effective claims and return to work processes; promote cooperation and consultation between WCB inspectors, employers, and workers; and enhance worker accountability for safety. 