



RECEIVED

APR 21 1980

BUILDING INSPECTOR'S
OFFICE

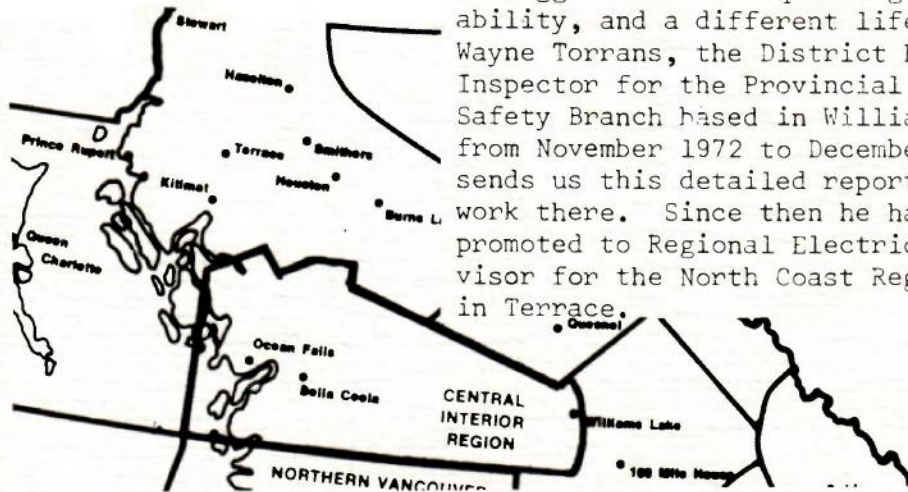
THE INSPECTOR

P.O. Box 80479, Burnaby, B.C. V5H 3X9

APRIL 1980

DAILY ROUTINE OF A NORTHERN ELECTRICAL INSPECTOR

Covering roughly 29,000 square miles of rugged terrain requires guts, flexibility, and a different lifestyle. Wayne Torrans, the District Electrical Inspector for the Provincial Electrical Safety Branch based in Williams Lake from November 1972 to December 1979, sends us this detailed report on his work there. Since then he has been promoted to Regional Electrical Supervisor for the North Coast Region, based in Terrace.



The Williams Lake office covers an area that stretches from the west side of the Caribou Mountains to such points on the west coast as Ocean Falls, Namu, Rivers Inlet, Bella Bella, and inland to Bella Coola. Sixty thousand persons live and work in the area.

The four major industries of the area - forestry, fishing, agriculture, and mining - continue to grow and expand, resulting in increased workloads for the Safety Engineering Services Division, including the Electrical Branch. Forestry is carried out throughout the entire region. Fishing is primarily on the west coast (Bella Coola and area). With the increasing expansion of hydro to outlying areas, agriculture again is expanding. Mining comes last as an industry in this region but continues to grow.

INSPECTION SCHEDULES

During my time at Williams Lake, two inspectors covered this large geographical area. We averaged six inspections per day based on a thirty-five hour week. Inspection services were programmed to fit a variety of circumstances - Bella Coola and area and the areas west of Williams Lake to Anahim were on separate monthly schedules. Bella Coola and area were covered by aircraft. This trip took three to

EDITOR

Johanne Stemo

EDITORIAL COMMITTEE

Jim Law
Ernie Mortimer
Dudley Barnes
Andy Robertson

EIA OFFICERS

President
Ernie Mortimer
Vice President
Joe Laminski
Secretary
Dave Jackson
Treasurer
Fred Moore
Box 80479
Burnaby, B.C.
V5H 3X9
Phone: 434-5887

Directors
Ian Dingwall
Al Horwell
Andy Robertson
Associate Directors
Dudley Barnes
Jim Reid
Past President
Jim Law

four days depending upon work load. The area west to Anahim was a three to four day trip by vehicle. Other areas such as Horsefly and Likely would be covered every two weeks and the remainder of the time spent in the immediate Williams Lake area.

TRAVEL TIME

Travel time worked out to sixteen to eighteen hours per inspection. Over the past two or three years there has been an increasing demand for electrification expansion in rural areas. This has created a situation where it is required to travel over 120 miles of gravel road before performing one inspection. These extension lines range from sixty to seventy miles in length with various side trips ranging from two to three miles. In my case, it meant I was away from home on the average of six to eight days per month.

NORTHERN WEATHER

Five to six months of the year northern weather plays games with available methods of transport. Only twenty per cent of the roads are paved, adding to the difficulties. Cold and snow may make vehicular travel impossible and planes may be grounded leaving the inspector in an outlying area, or unable to get to a service call in a back area. However, people living here are well aware of the climatic conditions and the difficulties encountered in travel and they are most sympathetic if you are unable to get to their place, and very appreciative when you do brave the inclement weather.

WARM SENSE OF COMMUNITY

Personally I feel there is an advantage to living in a northern and/or smaller community. People are very hospitable. They tend to include you in their community activities when you have to spend a night in the area. I appreciated this very much as I did a lot of travelling and it provided me with a pleasant alternative to sitting in a motel room or local pub.

WORKING WITH CONTRACTORS

The difference here is that you get to know each individual contractor and his men, thus enabling you to better assist with Code interpretations and other related problems that may occur. By this I mean that because you know them, you have the advantage of being able to

sit down with them and communicate on a professional level. I would suggest that the relationship is closer because there are not as many contractors to associate with and more time to spend dealing with Code interpretation. By furthering the contractor's understanding of the regulations, the job becomes easier. B.C. Hydro and other departments and levels of government probably find the same sort of working relationship.

YOU NAME IT, WE DO IT

As the Regional Supervisor is remotely located from the District Office, both inspectors have to be able to perform all types of inspection in their own areas. Inspections range from everyday residential wiring to the more complicated commercial expansions. Since mail service to some areas is on a once-a-week basis, the telephone plays an important role in the inspector's work day. Permission for a specific installation may have to be granted over the telephone. When this is done, it is followed by a covering letter, thus increasing the paperwork. The proportion of homeowner permits is probably greater in a northern area - the costs of contractor travel, isolation of ranches, summer homes on lakes, and also the limited number of contractors available, tend to bring this about.

Even with the Regional Office remotely located, it was found that there were very few problems in regard to uniformity and Code interpretation. Procedures are similar from area to area. The inspector gets involved during the preliminary stages of proposed building developments such as forest products complexes, irrigation systems with stage pumping, or any electrical installations along the coastal areas. One difference in a northern area is that inspections cannot be performed on a daily basis; therefore, the authorization procedure for an electrical contractor plays a large role.

Regional meetings are held on a three to four month basis. It is during this time that the inspectors get together to discuss Code changes and any problems that they may have in their specific areas. B.C. Hydro has seminars periodically to work out specific changes in policy and/or problems. This type of contact is very helpful and informative to the District Inspector.

The question of safety in relationship to

climate has been provided for in the Electrical Code. Nevertheless, specific problems do arise with regard to water pumps located near or in a lake and heating devices used on water lines and oil lines. Other interesting installations, from a safety point of view, are water turbines or engine powered generators often found in remote areas.

THE GREAT OUTDOORS



Whether or not this is a plus depends entirely on the individual. There is an abundance of fish and game and the opportunity to further your hobby whether it is shooting pictures or staking a claim.

- Wayne Torrans



NEWS OF THE INDUSTRY

PANEL ON CODE CHANGES

Code changes in the 13th Edition of the CEC, Part I, was the subject of a panel made up of A.R. Luck, Chief Electrical Inspector, Province of B.C.; G.W. Brand, Chief Electrical Inspector, City of Vancouver and Chairman of the Electrical Wiring and Equipment Standards Committee; D. MacIntyre, Chief Electrical Inspector, Municipality of Surrey; and J. Laminski, Manager of Field Operations, Provincial Electrical Safety Branch.

The meeting provided an insight into some of the code changes and an opportunity by those in attendance to take part in open dialogue. Questions from the floor prompted lively and some lengthy discussion and in one instance, ended only when Al Luck promised to follow up with a series of explanatory sketches scheduled for later in the year.

Association President, Jim Law, noted that an additional code discussion meeting could be scheduled for Spring.

The attendance of 60 was made up of electrical inspectors and representatives from the industry. The meeting took place at the B.C. Hydro building, January 21, 1980.

CSA INTERNATIONAL

Dudley Barnes, Manager of the CSA Pacific Region Branch, says that CSA inspections now cover 33 countries. These include Australia, China (Mainland), Hong Kong, India, New Zealand, Singapore, and South Korea, embodying a geographical area known as the "Far East".

PEAK WATTS

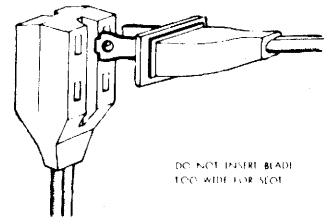
A battery of electricians...

CONSUMER'S CORNER

CSA has recently issued to manufacturers of juice extractors notice of the following additional requirement to the relevant CSA standard:

Household Juice Extractors, using grating devices and the like, shall be provided with an interlock switch which prevents operation when a cover or guard is removed, except that an interlock switch is not required, if the protrusions on the grating device are less than 5/32 inch from its main surface.

This is another example of CSA and manufacturers working together to provide additional protection to the consumer.



CONSUMER ALERT

POLARIZED PLUGS

(From January/February 1980 Tie-In)

Some appliances such as TV sets may have a special plug with one blade wider than the other.

This type of plug has been designed to ensure matching polarity of connections so that it can be inserted in a receptacle one way only.

It is now a requirement that 15 amp household outlets be polarized to accommodate the wider blade. However, in some older houses and some extension cord sets, the slots may be too small to accept the wider blade of a polarized plug.

"Unfortunately, some people try to force the wider blade in far enough to be energized," commented Hydro's electrical and lighting supervisor, Roy Hughes. "This could result in a shock because the blade is exposed."

SEARCH FOR NEW SOURCES OF POWER

Geologists drilling at Meager Creek near Pemberton have discovered new evidence that a geothermal steam reservoir may exist in the area.

Drillers reached a temperature of 202° Celsius at a depth of 367 metres, as they probed the south side of Meager Mountain volcanic complex, about two kilometres west of Meager hot springs.

Joe Stauder, generation planning engineer for B.C. Hydro, said this temperature, if combined with adequate pressure and supply of water, could provide steam for a commercial electric generating station.

The test hole was drilled as part of a cooperative program of drilling and geophysical surveys being carried out by Energy, Mines and Resources Canada and B.C. Hydro.

The program is managed by Nevin Sadlier-Brown Goodbrand Ltd., consulting geologists.

Stauder said drill cores brought up from the test hole show alterations to rocks which suggest the presence of hot fluids at lower levels.

In areas of such activity, hot water circulates through fractures in the rock as it is heated and moves towards the surface. The water usually carries with it dissolved quartz particles known as "silica". As water rises to the top of the fracture system, the silica crystallizes out of the water and is deposited in fractures. Eventually, the crystallized silica fills the fractures over a wide area, forming a cap which seals off the geothermal reservoir below.

Core samples from the test hole have fractures solidly plugged with silica, which indicates these samples are probably part of the cap of a geothermal reservoir.

Work at the Meager Creek camp was closed down before Christmas but will reopen towards the end of March, 1980, at which time additional test holes will be drilled to establish the boundaries of the reservoir.

Also in 1980, Hydro may drill one deep hole,

passing through the cap and penetrating the geothermal reservoir, at a depth estimated at between 600 and 1500 metres.

Stauder says the 1980 program may be followed by several years of additional drilling and testing to determine precisely the temperature as well as the quantity, composition, and pressure of the geothermal fluids.

If testing demonstrates a sufficient quantity of fluid under adequate pressure and temperature, Hydro could start planning a pilot geothermal generating plant by the mid 1980s.



OUR READERS COMMENT

The following inter-office correspondence was received by Mr. Dudley Barnes, Manager of the Pacific Region Branch of the Canadian Standards Association:

Dear Dud: Thanks for sending me a copy of "The Inspector". It looks attractive and efficient. Congratulations. Best regards, Fred Kuntz, Manager, Public Relations, CSA, Rexdale, Ontario

A consultant asks and comments:

What happens when a code or rule is being misinterpreted again and again by consultants and/or contractors? That's when it would be very useful to have that particular code or rule pointed out and discussed in "The Inspector" so that all persons in the industry become aware of the problem.

A householder asks and comments:

What is the status of the owner who takes out a permit to wire his/her own residence? A substantial number of people including some electricians will report that owners are discriminated against by inspectors.

Editor: How valid is this assumption and what should be done to improve the image of the inspector in this regard?

INCOMING PRESIDENT'S MESSAGE

The year 1980 is on the move. I think it would be well to remember that we, in the EIA of B.C., have accomplished a great deal in the past few years, thanks mainly to the untiring efforts of former presidents. In addition, there has been a terrific amount of expert and dedicated input by former executive members and numerous individual contributions. These have come from all inspection areas in the province - provincial, municipal, and others.

At this time, I wish to thank the various associate members of the EIA and industry for the many hours contributed by them to improve the position and status of the EIA of B.C..

But let us not be lulled into a position of self-satisfaction. There is still a great deal to be accomplished. The first question we must ask is, "Who will serve?". Giving up some of that leisure time for the common good will help to make our organization

- stay healthy and grow
- become more attractive to the industry
- enhance and improve our public image
- raise our status within the ranks of the various inspection agencies.

Please give this matter some serious and far-ranging thought. There is no simplistic or short-term answer.

In my first endeavour as president, it is my fervent and fondest hope that, with the help of all of you in industry, labour and government, I may be able to contribute to a stronger and far-reaching newsletter through the EIA of B.C. and, to facilitate a more harmonious and simpler understanding of the Electrical Safety Inspection Services by the public at large.

Ernie Mortimer
President

EDITOR'S NOTE:

Diversity, challenge, and the opportunity to meet people from a cross-section of society are rewarding aspects of Ernie Mortimer's job in the Electrical Inspection Department at Burnaby Municipal Hall. He takes pride in his work: "We are performing a vital safety service to the community".

Ernie Mortimer joined the Electrical Inspection Department of the Corporation of Burnaby in 1973 but his technical training and work experience date back to the time of World War II when he served in the Canadian Navy. In 1949 he joined the B.C. Electrical Energy Department under Chief Inspector, Lance Robson. Four years later he went into the electrical end of construction and stayed there for 20 years.

His love of the outdoors keeps him physically fit. Not only does he walk three miles to work and back each day, but on occasion, he and inspectors, Dave Jackson and Chuck Moon, go on overnight hiking and camping trips.

THANKS TO PAST PRESIDENT

On behalf of all the members, executive, and associate members, I would like to take this opportunity to thank our recent Past President, Jim Law, for his invaluable and inspiring service to the EIA of B.C..

Jim has given up a great deal of his time to further the aims and objectives of all of us engaged in the industry, and he can be justly proud of being in the forefront of creating a more interesting and harmonious relationship with the various inspectional agencies throughout the entire province.

He was in no small measure responsible for launching our new communications link, the EIA INSPECTOR and has always conducted the general and executive meetings in a very sincere and democratic manner.

We salute you, Jim, and sincerely hope you will continue on the executive with your timely comments and gentlemanly conduct.

Ernie Mortimer
President

With this issue, circulation of THE INSPECTOR has more than doubled. Distribution has been facilitated by use of the mailing services of the Electrical Contractors Association through its manager, Ross Kinneard.

PEOPLE IN THE NEWS

Joe Laminski, Manager of Field Operations of the Ministry of Labour's Electrical Safety Branch, reports these staff changes.

Jim Alexander is back in the field. After approximately 6 months as Acting Head of Equipment Approvals in the Vancouver Head Office of the Electrical Safety Branch, Jim is now at home base in the Richmond district office.

Richard Berton is being transferred to Victoria as soon as vacancies are filled in the North Coast region where he is presently inspecting.

Gerry Costello, recently an auxiliary inspector in Kamloops and Kelowna, is appointed to Duncan.

Bill Hopkins is being transferred to Chilliwack as soon as a replacement is found for him in Williams Lake.

Pete Janzen, an inspector who comes to the Branch via the Municipality of Burnaby, is the new man in Dawson Creek.

Gerry Poeschek, another new man to the Branch, is appointed to the Terrace office.

Ruth Schuster replaces Celina Lawless as office assistant in Fort St. John.

Mr. Al Luck is pleased to announce that Mr. John Harding joined the Electrical Safety Branch as Administrator of Equipment Approval Activities March 17, 1980.

John brings with him an extensive knowledge of the electrical industry. After completing an electrical apprenticeship and technical training at Southall Technical College in England, he came to Canada in 1949. Following his arrival in Canada he was employed for 16 years by Canadian General Electric in Toronto where he held various responsible positions including that of Electrical Plant Supervisor.

In 1965, John, his wife Jean, and two sons were attracted to the West Coast where he joined Klockner-Moeller Limited as a technician. He joined Telemecanique Canada Limited in 1970 as Technical Sales Representative and

in 1974 joined Harvey Hubbel Canada Limited where he served as Western Regional Manager.

John holds electrical certificates issued by the Province of Ontario and is registered with the B.C. Society of Engineering Technologists as a Senior Engineering Technician.

EIA MEETINGS

SPEAKERS AT ANNUAL GENERAL MEETING

Presentations by three specialists in the industry were highlights of the Annual General Meeting held on March 3, 1980 at the Astor Hotel in Burnaby.

Jay Sehgal, Assistant Manager of Pirelli Cables, based in Toronto, is a graduate of the University of West Virginia and the School of Business Administration at Ohio State University.

Bill Erichson, now a partner in Tian Electric, was three years with the Electrical Safety Branch as Codes and Standards Engineer for the Province of B.C..

Colin Marsh, a computer engineer and partner in Tean Electric, has a 15-year background with the international company of Sperry Univac Computer Systems.

EIA GENERAL MEETING - MONDAY, MAY 26

SPEAKER: Ross Kinneard
General Manager
Electrical Contractors Association
of British Columbia

TOPIC: "Where Inspection is Headed in
British Columbia (From the
Contractor's Point of View)"

TIME AND PLACE: To be established.

Note: A business meeting for active members only has been scheduled for the latter portion of the same evening.

DETACH AND SAVE THE LAST PAGE

The last page of this issue of THE INSPECTOR is a notice and registration form for a convention to be held in Victoria on June 20 and 21, 1980.

The event is the Annual Meeting for both the Canadian Section and the B.C. Chapter of the International Association of Electrical Inspectors.

KONSENSUS KORNER

By an overwhelming response to the initial question, 001 of Konsensus Korner, the unanimous consensus decision reached is YES. The unanimous decision is based on a mere 4 submissions.

Question No. 001 Jan 80

Do you feel that a gradient control mat is needed for a primary switch on a grade level outdoor station?

YES [4] NO [0]

Comment by Al Luck, Chief Electrical Inspector, Province of B.C.: "The question was not specific regarding its intent; did the question mean a pole-mounted switch controlling an outdoor station or a metal-clad or metal-enclosed unit substation? In the case of a pole-mounted switch, the Code is specific and the answer is YES. If metal-clad or metal-enclosed switchgear was intended, the Code is not specific and further study should be made."

THIS ISSUE'S QUESTIONS

Question No. 002 Apr 80

There is currently a movement to create a single multi-disciplined residential inspector by combining the Building, Electrical, Plumbing, and Gas trades.

Do you as a member of the E.I.A. favour a multi-trade inspector for residential buildings?

YES [] NO []

Question No. 003 Apr 80

In Rule 8-202(2)(d), do you feel that the word "heating" infers electrical space heating?

YES [] NO []

Questions on ANY topic, Code or otherwise will be accepted, with the sole proviso being that the questions be structured for YES or NO responses. In subsequent issues of THE INSPECTOR, your submitted questions will be introduced and those of the previous issue will be repeated together with a consensus tabulation. Please made your questions brief and concise.

Mark your responses to the above questions and mail your questions to:

EIA, Box 80479, Burnaby, B.C. V5H 3X9

Application for renewals or new memberships in the EIA should be sent to,

Electrical Inspectors Assoc. of B.C. P.O. Box 80479 Burnaby, B.C. V5H 3X9

Applicants Name: _____

Address: _____

Renewal Membership
I have enclosed \$15.00 as an Inspector Member [] []
I have enclosed \$20.00 as an Associate Member [] []

1980 Membership Cards will be returned with Dues Receipts.

[] I require a membership pin.
[] I require a certificate of membership.

Attention: B.C. Electrical Industry!

B.C. CHAPTER INTERNATIONAL ASSOCIATION OF ELECTRICAL
INSPECTORS WOULD LIKE TO INVITE YOU TO ATTEND THE FIRST
CANADIAN SECTION CONVENTION HELD IN WESTERN CANADA,
JUNE 20TH and 21ST AT THE EMPRESS HOTEL, VICTORIA, B.C.

come and see . . .

- A demonstration on electrical safety by Claude Haggard, a lecturer in much demand throughout North America.
- Feature titled "Inspectors - Who Needs 'Em?";
R. Niedermeyer, Chief Inspector, City of Portland, PRO;
R. Kinneard, E.C.A. of B.C., CON;
J. Campbell, Ian Hayward and Associates, Moderator.
- Code Panel (reverse) - Experts will ask questions of the delegates. Among the delegates we expect to have representatives of the C.E.C. Part I Committees, who are having their meetings following our convention.
- Dinner/Dance - Crystal Ballroom.
- Scenic tour and lunch - Oak Bay Beach Hotel.
- Interesting ladies program.

REGISTRATION FORM

NAME: _____

ADDRESS: _____

CITY: _____ PROV. (STATE) _____

FIRM: _____

I.A.E.I. MEMBER: YES _____ NO. _____

WIFE WILL ATTEND: YES _____ NO. _____

REGISTRATION: DELEGATES \$60.00 LADIES \$15.00

INCLUDES ATTENDANCE AT SESSIONS, DINNER-DANCE, TWO LUNCHEONS,
SCENIC BUS TOUR AND LADIES PROGRAM.

RETURN TO:

SECRETARY, B.C. CHAPTER I.A.E.I.,
P.O. BOX 5187,
STATION "B",
VICTORIA, B.C.
V8R 6N4

ACCOMMODATIONS

THE EMPRESS HOTEL IS A MAJESTIC FULL SERVICE HOTEL LOCATED ON VICTORIA'S INNER HARBOUR. AS THE CONVENTION HOTEL, IT WILL BE IN THE CENTRE OF ALL THE ACTIVITIES. DUE TO THEIR ROOM RATES, THE CONVENTION COMMITTEE HAS DECIDED TO OFFER SOME ALTERNATE ACCOMMODATION.

ALL OF THE FOLLOWING ARE WITHIN EASY WALKING DISTANCE OF THE EMPRESS. THE CREST AND SWIFTSURE ARE MOTOR HOTELS, ADJACENT TO THE INNER HARBOUR; HARBOUR TOWERS IS A HIGH RISE HOTEL LOCATED ONE BLOCK FROM THE HARBOUR.

RATES

	<u>SINGLE</u>	<u>DOUBLE</u>
EMPRESS	\$47.00; \$57.00; \$62.00	\$56.00; \$67.00; \$72.00
CREST	\$30.00	\$33.00; \$35.00; \$39.00; \$41.00
SWIFTSURE	\$42.00; \$45.00	\$46.00; \$49.00
HARBOUR TOWERS	\$35.00; \$39.00	\$38.00; \$48.00 (QUEEN SIZE) \$44.00 - \$50.00 (TWIN DOUBLES)

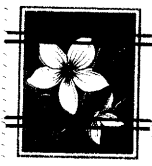
PLEASE RESERVE THE FOLLOWING ACCOMMODATIONS:

HOTEL: EMPRESS _____; CREST _____; SWIFTSURE _____; HARBOUR
TOWERS _____

ROOM: SINGLE _____; DOUBLE _____.

RATE: _____ (ONE NIGHTS DEPOSIT REQUIRED)

FOR JUNE 19TH. _____; JUNE 20TH. _____; JUNE 21ST. _____.



Corp. of Burnaby
Electrical Inspection Dept.
4949 Canada Way
Burnaby, B.C. V5G 1M2