



The British Columbia Institute of Power Engineers Collaboration Day November 18, 2016

Which took place at: SE02-212A (Town Square A), BCIT
Burnaby Campus from 10am to 4:30 pm



Chairperson:
Eric Steinson

Event Summary by:
Jason Rako

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1. Forward:

The British Columbia Institute of Power Engineers hosted the first Collaboration day three years ago on March 15, 2013. The discussion focused on the apparent critical shortage of Power Engineers, increasing awareness of power engineering, industry steam time opportunities, networking opportunities, and power-engineering student involvement with the IPE.

Since then, four more Collaboration Day events took place (2013, 2014, and 2015) and the focus of the event expanded with better ties with industry groups, collaboration with trade unions, discussions with the Vancouver School Board, and correspondence with government ministries.

The 2016 Collaboration day featured presentations focussing and discussing the needs of British Columbia's planned LNG industry and how the demand for plant operators would be met through government labour analysis and by the proposal of recognizing international plant operator qualifications.

2. Attendees for November 18, 2016:

<i>Art Smith, Retired Power Engineering Instructor</i>	<i>Wendy Gilmore, Teacher for students in Apprenticeship programs, Vancouver School Board</i>
<i>Dave Paulin, Area Director, Institute of Power Engineers</i>	<i>Jim Torcov, Power Engineer, UBC</i>
<i>Denis Cote, Power Engineering Instructor/Chair, Trades & Applied Technology</i>	<i>Orson Linton, Power Engineer, UBC</i>
<i>Eben Watt, Director, Workforce Mobility Workforce Development and Immigration Division</i>	<i>Julie Hewlett, Leader, Program and Policy Development, BC Safety Authority</i>
<i>Frank Cichon, Power Engineering Instructor, BCIT</i>	<i>Scott Howell-Fellows, Senior Policy Analyst, BC Safety Authority</i>
<i>Gordie Gully, Power Engineer, UBC</i>	<i>Karen Blake, Teacher, Vancouver School Board</i>
<i>Jason Rako, Recording Secretary, Institute of Power Engineers</i>	<i>Rick Stewart, Power Engineer</i>
<i>Paul Kwan, Manager, Chevron</i>	<i>Sam Huang, Power Engineering Student</i>
<i>Sanja Boskovic, Department Head, Power Engineering, BCIT</i>	<i>Brian Buckley, Associate Dean, School of Energy, BCIT</i>
<i>Stephen Davis, Power Engineering Program Coordinator, College of New Caledonia</i>	<i>Eric Steinson, President, Vancouver Branch of the Institute of Power Engineers</i>



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Tony Scholl, <i>Safety Manager, Boiler & Pressure Vessels, BC Safety Authority</i>	Vince Aalten, <i>Sales and Service Manager, IPAC Chemicals</i>
Vincent Portal, <i>Director, Skills Development, Colleges and Skills Development Branch</i>	

Meeting Agenda Items and Summary of Discussion

3. Introduction

Eric Steinson, Sanja Boskovic, and Brian Buckley welcomed presenters and guests to the 2016 British Columbia Institute of Power Engineers (BC IPE) Collaboration Day.

An introduction of the BC IPE executive members and a round-table introduction of all attendees then followed.

Eric Steinson played a video presentation that was made to the IAGT. This presentation, along with a white paper, showcases the value power engineers can provide in operating gas-turbine and gas-processing plants. This presentation was originally presented to the IAGT by Eric Steinson and Tim Haaf.

4. Introduction to the Foreign Qualification Recognition Process

This presentation was delivered by Eben Watt, Director of Workforce Mobility, Ministry of Jobs, Tourism, and Skills Training (British Columbia).

The Foreign Qualification Recognition Process (FQR) is

"The process of assessing the credentials and experience of internationally-trained workers against BC standards and certifying qualified applicants."

The process supports "public health and safety, human rights and fairness, and economic development."

To fill vacant positions in British Columbia, the government first uses initiatives to maximize British Columbia's current workforce (training, etc.); secondly, by recruiting workers from across Canada; thirdly, by utilizing international workers.

At the end of the presentation, there were multiple questions regarding how this process would affect power engineers. These questions would be answered in the BC Safety Authority's presentation.



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5. BCSA - Qualification Recognition and International Labour Mobility Project / 2016 Certification Framework

This presentation was delivered by Julie Hewlett, Leader of Program, Policy Development at the BC Safety Authority.

The presentation reviewed the steps taken as part of the project, including the initial consultations and outcomes, the proposed process, and supplemental consultation.

The current challenges in the power engineering industry include:

- Challenges with recruitment and retention (power engineers being poached from companies by other companies)
- Barriers to progression
- Potential for alternative training options
- A need to track active power engineers (in British Columbia, power engineer certifications do not need to be renewed unlike in other provinces)
- The role of industry ins supporting progression and training

To recognize international credentials, the BC Safety Authority received survey feedback that the process must be:

- Fair and consistent,
- Rigorous
- Industry-Supported
- Streamlined
- Flexible and Scalable

In addition, the survey feedback indicated a "majority" support for a process to recognize internationally trained worker qualifications, a certification renewal period, and a majority support for plant registration.

The proposed recognition process is as follows:

1. An international candidate fills out a self assessment, which includes supporting paperwork for the power engineer certificate of competency they wish to challenge in British Columbia
2. The BCSA intakes the application, which includes a third-party review of the candidate's credentials
3. There is a peer assessment evaluation



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4. A recommendation is made on whether the candidate should be certified as a power engineer in British Columbia.
5. The BCSA Safety Manager makes a decision (approval or denial)
6. If the candidate is denied, they may have the decision reviewed by an external appeal. This is marked as optional in the presentation given.

Concerns from the audience included whether or not there would be provisions in assessing a candidate's fluency in the English Language and the ability to communicate effectively. Discussion amongst attendees stressed the importance of this being addressed during the third step of the process. Also, it was discussed that hiring managers should ensure power engineers can communicate effectively and are a proper fit for their organization.

Another concern was raised regarding the safe guards in ensuring credentials are not fabricated. The answer given was that credentials would be thoroughly investigated during the review of the candidate's credentials.

Another question was asked regarding whether international candidates would be required to write the BCSA exams that correspond to the certification they are applying for (fourth-, third-, second-, or first-class). The answer given is that this would be reviewed on a case-by-case basis and a candidate may not be required to write the corresponding exams.

There is continuing supplemental consultation regarding examinations, renewals, continuing professional development (to ensure power engineers are current in industry), individual safety performance reporting, logbooks, and endorsements.

The BC Safety Authority will continue to work with the provincial government, consult with other jurisdictions, analyze the Safety Authority's internal processes, and continue to collaborate with other agencies.



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6. Chief's Letter from Ontario. Work with Trade Unions and Industry to create paid placements (for firing time).

Presented by Eric Steinson, this letter is written by Mike Adams, Director of the Technical Standards and Safety Authority (TSSA), and Gilles Leclair, Director of the Ontario Area Institute of Power Engineers (IPE).

The letter highlights the alarming shortage of power engineers in the Ontario area and appeals to chief engineers to provide power engineering students the necessary firing time required to obtain certification.

The letter notes that these positions can be either paid or unpaid and that there are tax credits available for companies that offer paid positions. Colleges can also provide liability insurance.

Feedback from an attendee in the audience noted that, in some cases, a company's union may not allow such placements and that an appeal to the unions may be necessary as well as to plant managers and chief engineers.

7. Lunch

A catered lunch was provided, courtesy of IPAC Chemicals, Chevron, and the Institute of Power Engineers.

8. Take Power Engineering to high schools

Facilitated by Eric Steinson and the Vancouver School Board.

Discussion about instituting power engineers at high schools. Conversation revolved about how high school students would get steam lab experience and how studies would be carried out. It was noted that there are high schools in other provinces that have successfully started fourth-class power engineering programs.

It was noted that power engineering is different than other trades and could be more flexible.

The Vancouver School Board would be in touch with BCIT to further discuss future possibilities.

9. Proposed Power Engineering Degree Program at BCIT

Sanja Boskovic gave an update on, and presented a rough draft of, the proposed power engineering degree program at BCIT.

The program is proposed as a way to address an employer demand for managerial skills in second- and first-class power engineers. Students would come out of the program with a Bachelor of Technology and a second-class power engineer certification. This is a three-year program.



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The draft-outline of the program shows that power engineers who hold a second-class certificate can challenge the third-year of the course after an academic upgrade. Power engineers who do not have a second-class certificate can challenge the second- and third-year of the program after an academic upgrade.

The draft outline of the program also includes avenues for FQR candidates to enter the program.

10. How to Support Power Engineering Students

Davie Paulin gave a presentation on IPE Scholarships and Worksafe BC insurance for volunteer power engineering time.

11. Open Discussion / Action Plan

A question was raised regarding the National Public Safety Advisory Council's plan to standardize plant ratings across Canada. Tony Scholl, Safety Manager at the BC Safety Authority, stated that planning is still ongoing.

A tour of the BCIT plant was given. Attendees watched as students synchronized BCIT's turbo generator to the BCIT grid.

12. Adjournment

Collaboration Day, for November 18, 2016, adjourned at about 17:00.

Event Summary Respectfully Submitted by:

Jason Rako,
Secretary of the Vancouver IPE for 2016 and 2017

Event Summary Reviewed by:

Eric Steinson,
President of the Vancouver IPE for 2016 and 2017