

*A presentation to  
IPECC  
2013 Annual Meeting*

*Power Engineering  
Safety through Certification  
Success through Cooperation*

*A Brief Review of Past, Present and Future*

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## *In the Beginning – Prior to 1900*

- Industrial revolution through introduction of steam power
- Numerous incidents
- Formation of Societies of Mechanical Engineers
- Promulgation of laws on boilers and boiler operators around the world



# *Introduction of Boiler Laws*

- 1882 Boilers Explosion Act (UK)
- 1897 Steam Boilers Ordinance (Canada)
- 1911 Uniform Boiler Rules (Massachusetts, US)
- And many others since then .



# WHY ☆

- “... for it was found that certain boilers were being operated in such a manner as to endanger human life.”
- “... more serious boiler explosions accompanied by loss of life have not occurred ... largely a matter of good luck..”

*\* See “Pressure Under Control: Celebrating 100 years of Pressure Equipment Safety in Alberta” published 1997*



# *1898 - in Alberta*

*(one year after proclamation of the Ordinance)*

14 final engineer s certificates

148 provisional or temporary  
certificates for engineers



*1971*

*SOPEEC*

Established to allow  
standardization of  
power engineering examinations  
and to promote  
free movement of power engineers



1973

*IPECC*

Established and met as part of SOPEEC  
& after 1975

meetings held in conjunction with SOPEEC  
with agreement that

The Chairman of each committee  
(SOPEEC and IPECC)

will attend each others meetings and report back



# *A Model of Success*

## *IPECC and SOPEEC*

A Partnership  
as can be seen through  
the success of power engineering  
and boiler safety in  
Canada





# *2013 – Power Engineering <sup>(1)</sup>*

*A well established*

*Occupation with huge demand for*

*Power Engineers*

*across Canada*



# *2013 – Power Engineering (2)*

*Basis for Power Engineering?*

*Seeds of Failure being Sown ?*



# 2013 – *Power Engineering* (3)

- Aging and shortage of power engineers
- Little/no continuing education requirements for certification
- Deployment of power engineers in fields unrelated to power/heating plant operation
- Changes to power engineering programs and certifications ?!



# 2013 – *Power Engineering* (4)


- Rapid changing technologies versus conventional techniques and methodologies
- Full automation and remote control
- Power/Heating Plants versus Pressure Plants



# 2013 – *Power Engineering* (5)

*We are at the cross road*

*Working together or face the  
consequences !*




# *Future of Power Engineering ? (1)*

To name just three challenges

Rapid advances of technologies

Operation automation

Power/Heating Plants vs Pressure Plants



# *Future of Power Engineering ? (2)*

*A matter of*

*Challenges*

*or ?*

*Opportunities*



*The Question:*

*Will the future be friendly?*

*The Answer:*

*Look within IPECC and SOPEECC*





*We Must Work Together*  
*for continual*  
*Success*  
*of*  
*Power Engineering*