ABSA's SMR Strategic Plan

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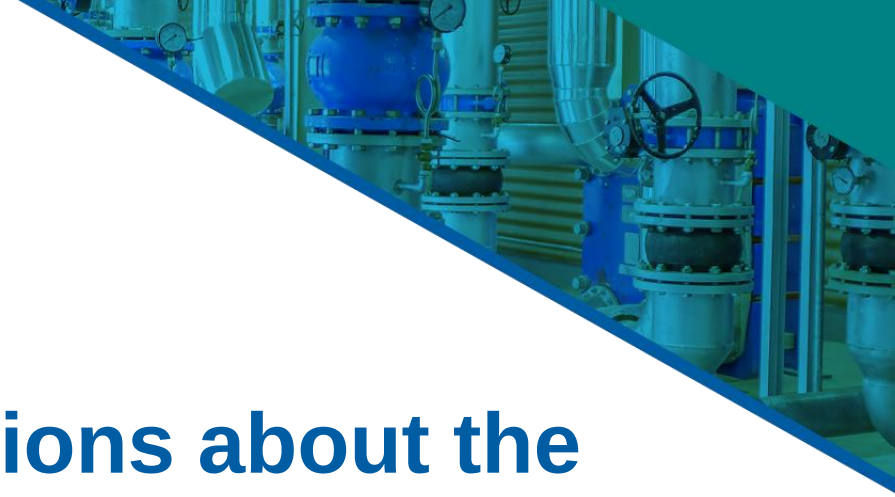
ABSA
the pressure equipment safety authority



- Context
- Background
- Where we are
- Where we are going

Assumptions about the intended audience:

- Generally familiar with the current industry interest in SMRs
- Knows about ABSA's role in the Alberta safety codes system

Context – Key facts to keep in mind

- Regulation of nuclear power plants is Federal jurisdiction: Nuclear Safety and Control Act, Nuclear Facilities Regulations. Provinces continue to have a role in approval.
- Regulation of conventional pressure equipment is provincial jurisdiction: Alberta Safety Codes Act, Pressure Equipment Safety Regulation.
- At the existing nuclear power plants in Ontario and New Brunswick, the respective provincial regulatory authorities apply their pressure equipment programs to the pressure retaining components in those plants.
- Regulation of nuclear power plants covers many topics; ABSA has interest in just a few – next slide.

Elements of oversight of nuclear power plants

- Emergency Management
- Pressure – Retaining Systems and Components
- Periodic Inspection
- Management Systems
- Concrete Containment and Safety – Related Structures
- Environmental Management
- Seismic Design
- Reactor Control Systems, Safety Systems, and Instrumentation
- Reactor Safety and Risk Management
- Radioactive Waste Management
- Fire Protection
- Decommissioning

Current Capability

Future Potential Capability

Background

- Contemplated becoming nuclear Authorized Inspection Agency (AIA) at peak energy prices circa. 2012/2013
- Decided to seek ASME accreditation in 2016, obtained in 2017
  - Program implemented without active shops
  - Must continue to meet all organization and personnel qualification requirements
  - Decided to become involved with CSA nuclear code committees to become familiar with the involved parties
- Code participation evolved to ‘earning a seat at the table’ in matters concerning nuclear AIAs and SMRs
- Volume of engagement has increased rapidly over past 2 years

Where we are

- ABSA is engaged in SMR related activities with many of its interested parties. Summary slide follows.
- Nature of activities range from policy to technical to business.
- The amount of our involvement and the increased level of interest compels us to formalize a strategy.

SMR – Interested Party Engagement

Enabling **– have some authority over ABSA**	***Functional*** **– essential to ABSA's operations**

• **Board** – consulted, supportive
• **Alberta Municipal Affairs** – consulted, supportive
• **ASME** – obtained nuclear AIA accreditation
	• **ABSA employees** – receiving training/certification on nuclear design and construction
	• **Training providers**:
	  • Richard Barnes – Design
	  • Clayton Smith – Section III, Div. 2 (concrete)
	Customers
	• **Cenovus** – introductory discussion – SMRs for process heat
	• **Graham Construction** – seeking ASME Section III certificate, providing AIA service
	• **PCL** – seeking ASME Section III certificate, providing AIA service
	• **Capital Power** – contacted regarding announcement

SMR – Interested Party Engagement

Normative **– groups with common interests of ABSA**	***Diffuse*** **– groups with infrequent interaction with ABSA**
• **PESC** – facilitated presentation by former Board Chair Bob Emmott • **ACI** – discussion regarding future provincial involvement • **CSA** – member participants ‘nuclear’ standards committees, discussion with Energy Sector Director – overview of CSA work on SMRs • **CNSC** – workshops, training with, working on regulatory framework • **TSASK** – agreement to provide nuclear AIA services in Saskatchewan • **TSSA** – cooperation on training	• **Pathways Alliance** – discussions with CNRL rep on developments • **The Manufacturing & Export Enhancement Cluster (MEEC)** – introductory discussion and delivered webinar in conjunction with the CNA • **Organization of Canadian Nuclear Industries (OCNI)** – introductory discussion • **Alberta Ministry of Energy and Minerals** – has the SMR file, introductory discussion

Who at ABSA is involved and how?

Policy

- Mike Poehlmann (President & CEO)
- Robin Antoniuk (VP & COO)
- Mike Prefumo (Inspections Manager)

Technical

- Blair Ionel (Southern Shop Supervisor)
- Djordje Srnic (Administrator & Chief Inspector)
- Lou Petrusevski (Design Survey Manager)
- Mike Prefumo (Inspections Manager)

AIA

- 12 – Qualified Nuclear Inspectors
- 4 – Qualified Nuclear Supervisors
- Design Survey

What have we gained from engagement to date?

- Technical knowledge of the nuclear codes
- Relationships with industry, CNSC
- Familiarity with regulatory oversight of nuclear power plants
- Recognition – a seat at the table
- Contacts and awareness of various projects under development
- Valuable insight into emerging technology in real time

Summary

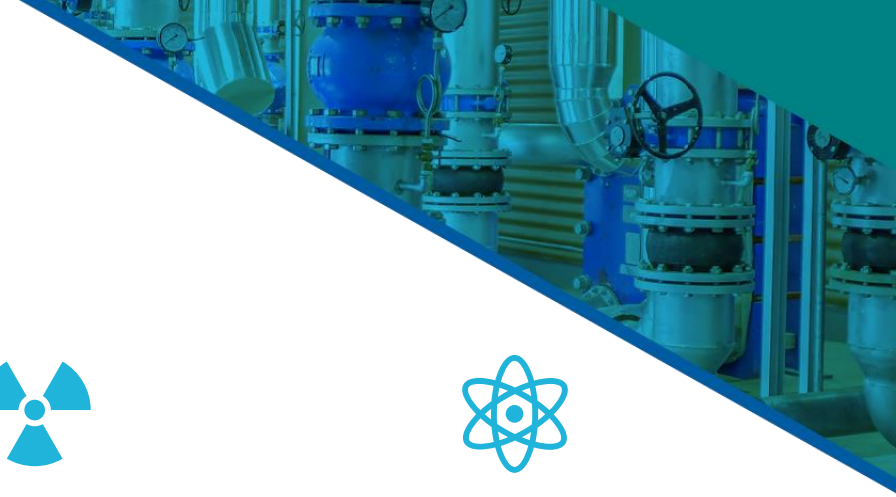
- Our efforts to date have been productive and have served us well in establishing basic understanding of the issues to be overcome for SMRs to be deployed outside of existing nuclear power plants and setting us up to play a significant role.
- We now know that we can help.
- Our Vision is to lead in pressure equipment safety.
  - *Helping sort out SMR deployment is leadership in the safety of SMR associated pressure equipment.*

Where are we going

In the context of leading pressure equipment safety, our vision for ABSA's role in nuclear energy is:

'To support safe design, construction, commissioning, operation, and practical regulatory oversight of nuclear power technology.'

Strategic Objectives – provide support to:



Manufacturers

By providing the same level of competent, reliable, cost-effective AIA services that we provide to conventional BPV manufacturers. Guiding Alberta Manufacturers through the ASME and N285 certification process.

Owners

By providing assistance in navigating the rules concerning nuclear pressure boundary technical requirements and helping to connect them with key contacts to guide the overall process.

GOA

By providing input concerning SMR pressure boundary technical administrative requirements and the overall process for CNSC approving AIAs and manufacturers not tied to licensees.

Employees

By providing personal development opportunities in field of nuclear pressure boundary technology.

Users

By providing training on the regulatory oversight of nuclear power plants.

What does success look like?

- ✓ Helping manufacturers to become certified to nuclear codes/requirements
- ✓ Helping CNSC to develop the pathway for AIAs and manufacturers
- ✓ Recognition for ABSA as a leader
- ✓ Organizational self satisfaction that we've done what we can do
- ✓ Establishing ourselves as an entrenched player in the future of nuclear technology, specifically regarding pressure equipment
- ✓ Accepted as a nuclear pressure equipment regulatory authority
- ✓ Establishing an ABSA program (core process for nuclear services)
- ✓ Nuclearizing "The ABSA Way" – bringing our approach to nuclear

How does this benefit ABSA?

- ✓ Meets all of ABSA's values
- ✓ Contributes to ABSA's relevancy and sustainability
- ✓ Provides a path for organizational growth and professional growth in staff

Thank you!

The ABSA way