



Canadian Boilermaker

A newsletter for Canadian members of the International Brotherhood of Boilermakers

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Carbon capture: Developing technology key to carbon emission cuts



L146 Business Manager Dean Milton and IBB International Representative Cory Channon (back row, left) were part of an international delegation that visited Alberta's Sturgeon Refinery to learn more about the state of carbon capture in Canada.

Canada has set the stage for carbon capture and storage (CCS) to be deployed worldwide, and Canada's Boilermakers are front and centre in building the pioneering large-scale facilities that use the technology.

Boilermakers have welded their commitment to the technology by joining the Global Carbon Capture Institute on its second annual Canadian Study Tour, which took place in late September. Boilermakers International Representative Cory Channon took part in the study tour and was impressed with both the warm welcome he received and the optimism of the participants.

"They were really impressed that a union was showing some leadership in promoting carbon capture," he said. "They were very confident that carbon capture is about to take off in a big way."

The 17 individuals from five countries met with Alberta government officials and toured Quest and Alberta Carbon Trunk Line capture facilities. "The Quest facility is showing that CCS works," said Peter Zebedee, general manager at Shell Scotford.

16 countries

The study tour was followed by the Global CSS Symposium in Regina October 3 – 5. The symposium was attended by 150 delegates from 16 countries, including the United States and Mexico. Channon attended along with industry representatives from Canada. Delegates took time off to tour SaskPower's Boundary Dam project, the world's first large-scale CSS installation.

Canada is home to three of the world's pioneer industrial-scale CSS projects: Shell's Quest refinery, the new NWR Sturgeon refinery in Alberta and Boundary Dam. All three were built by Boilermakers.

But the rest of the world is catching up. Last November, the world's first large-scale CCS facility in the steel industry was launched in Abu Dhabi. In January, an American-Japanese partnership that includes NRG, the leading power company in the US, announced plans for a carbon capture facility near Houston that will be the world's largest post-combustion capture facility at

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Carbon capture is essential to meet global CO₂ reduction targets

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a power plant. A Norwegian facility will save 1.3 million metric tonnes per year of carbon emissions. And there are a number of significant projects underway in Asia.

“As Boilermakers, we’re at the leading edge of an incredible technology that can help us to meet the goals that were adopted by the Paris conference on climate change,” said Channon. “In fact, chances are we won’t be able to meet those goals without carbon capture.”

Boilermakers will have the chance to present our position on carbon capture to a worldwide audience when we attend a followup to the Paris conference, which is taking place in Germany this month (November).

Bum rap

“Energy workers and the much of the energy industry have been taking a bum rap on climate change,” says Channon.

“We live in the same world as everyone else; we want to leave a clean environment for our children, just like everybody. And we’re eager

to be a part of the solution. Canada can be a world leader in clean energy, and carbon capture is the key.” While the first large-scale CCS projects had their growing pains, the Canadian projects are now proving their worth. Shell’s Quest facility and the Boundary Dam project are each taking a million tonnes of carbon out of the environment every year, equivalent to taking more than half a million cars off Canadian roads. When the NWR Sturgeon refinery comes onstream, it will provide similar benefits.

“It’s just not realistic to think we can meet our Paris commitments without carbon capture,” said Channon. “It could very well contribute more than any other single source to reduce our greenhouse gas emissions. Industry is getting on board in a big way. It’s time for government to promote carbon capture as part of Canada’s contribution.”

Will Canadian governments listen to the evidence? Canada’s Boilermakers, along with many others in industry and academia, will be working to ensure it happens.

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The cutting-edge carbon-capture facility at the NWR Sturgeon refinery in Alberta.