

## How the Suncor Montreal refinery reduces its environmental footprint

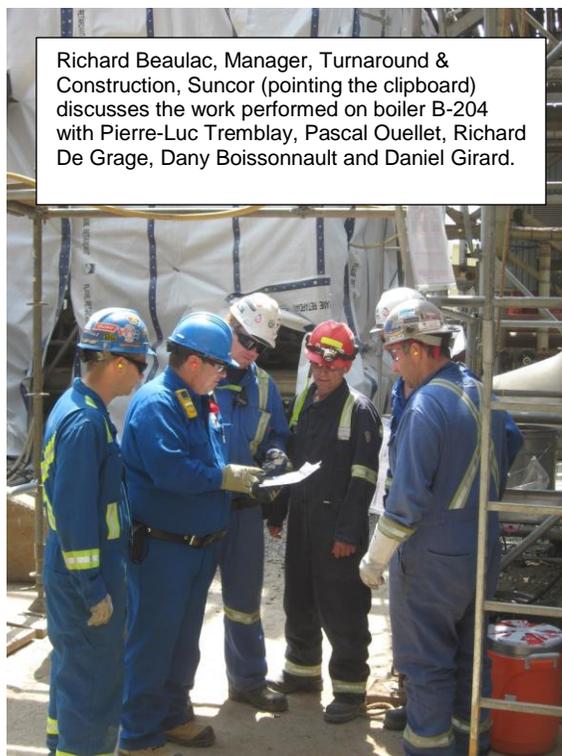
Over the years, the Suncor Montreal Refinery has been able to modernize and adapt its facilities to achieve significant air emissions reduction rates, meeting or exceeding compliance requirements through ambitious energy efficiencies and new technological advances.

To achieve these reduction rates, approximately \$111 million was invested in forty improvement projects since 2003. Projects included: VOC emission reduction with the installation of floating roofs; emission reduction particles to the catalytic cracker, and the benzene emissions at the refinery dock, to name a few.

From 2007 to 2014, sulfur dioxide (SO<sub>2</sub>) rates at the Montreal refinery were reduced by 70%; nitrous oxide (NO<sub>x</sub>) rates were reduced by 35% and volatile organic compounds (VOC) by 53%. Moreover, the reduction in intensity of greenhouse gas (GHG) emissions compared to 1990 was 40%.

From 2010 to 2015, energy efficiency projects achieved a GHG reduction rate of 101 700 metric tonnes of carbon dioxide (CO<sub>2</sub>), or close to 9%. If we use a common analogy of the Ministry of Energy and Natural Resources of Quebec, the refinery GHG reduction is equivalent to the removal of about 30,000 cars off our roads.

On an annual basis at the refinery maintenance shutdowns, various units of the facilities are regularly modernized, disassembled, scrutinized and upgraded. Procedures and practices are also meeting, if not exceeding, the highest environmental standards, either for reducing emissions of greenhouse gases, treatment of waste, or controlling noises or odor emissions. Optimizing the energy efficiency of our equipment is one of the priorities of the annual maintenance done as part of our shutdowns. The long term strategy of the Suncor Montreal refinery is focused on a triple bottom line performance: economic, social and environmental. We want to provide a safe work environment and reduce our environmental footprint, operate a profitable and reliable operation, and contribute to the betterment of the communities where we work and live.



Richard Beaulac, Manager, Turnaround & Construction, Suncor (pointing the clipboard) discusses the work performed on boiler B-204 with Pierre-Luc Tremblay, Pascal Ouellet, Richard De Grage, Dany Boissonnault and Daniel Girard.



