

# river steel

Technical  
data sheet

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rtft.com

## Environment SO<sub>2</sub> recovery plant



RioTinto

# \$85M

## SO<sub>2</sub> recovery plant

Rio Tinto, Fer et Titane (RTFT) is investing \$85M for the construction of a new plant as a sustainable solution to reduce SO<sub>2</sub> emissions.

### Objective:

Reduce sulphur dioxide (SO<sub>2</sub>) emissions at the metallurgical complex in Sorel-Tracy by more than 60%.

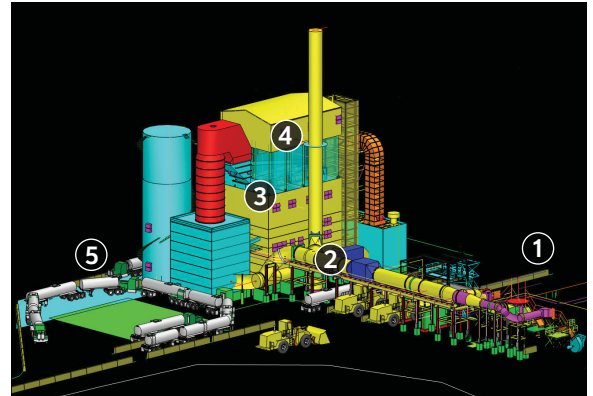
### Air quality and monitoring

- This investment will improve air quality in the region, most notably in Saint-Joseph-de-Sorel.
- In order to assess performance and measure air quality improvement, RTFT will have its own air quality monitoring and measurement station.
- The ministère du Développement durable, de l'Environnement, de la Faune et des Parcs also operates two air quality measurement stations in the region.

As part of the investments announced for the TiO<sub>2050</sub> project which was launched in 2011, RTFT is upgrading the equipment and systems of its metallurgical complex in Sorel-Tracy, with the objective being the improvement of its environmental performance.

### What is SO<sub>2</sub>?

Sulphur dioxide (SO<sub>2</sub>) is a colourless gas with an odor similar to burnt matches. The main sources of SO<sub>2</sub> are industry and transportation. Sulphur is also used in the agri-food industry (wines, dehydrated fruits, beers, jams).



*A look at the new plant*

The SO<sub>2</sub> recovery plant will be directly connected to the Ore Pretreatment Plant.

### Technology

- ① Exhaust duct from the rotary furnaces of the Ore Pretreatment Plant.
- ② The exhaust gases (SO<sub>2</sub>) from the rotary furnaces enter through the bottom of the reactor.
- ③ The process water is injected inside the reactor in order to enable the reaction between the hydrated lime and the SO<sub>2</sub>.
- ④ A new dust collector will process the gases before they are released into the atmosphere.
- ⑤ The reaction generates a sub-product constituted mainly of calcium sulphite and gypsum. The water is completely evaporated before leaving the reactor. Only dry solids are then diverted to the dust collector.

Lime residues will first be recycled internally in the process, or used as raw material for a variety of applications, such as agriculture, absorbents and the cement industry.

### Timetable

Project engineering works are currently underway. The plant is expected to be commissioned in late 2014.