

Gol Thermal power Plant, Reunion Island

Health Risk Assessment



Country
France

Client
Compagnie Thermique du Gol
(Séchilienne-Sidec)

Date
2004

Sogreah Magelis' services

- ▶ Assessment of soil and groundwater pollution
- ▶ Modelling of atmospheric dispersion of emissions
- ▶ Health Risk Assessment (HRA)
- ▶ Statutory application for operating licence



The Compagnie Thermique du Gol (CTG), a subsidiary of Séchilienne-Sidec (member of the Air Liquide group) intends to build and operate a new plant on Reunion Island (within the Saint-Louis municipality).

The plant comprises a boiler house and power generating equipment with a gross rated power of 55 MW and a net continuous power of 51 MW. This plant is intended to meet the requirements of the EDF power grid on Reunion Island and supply steam to the adjoining sugar refinery in the event of a failure on the existing units.

Sogreah Magelis' assignment consisted of assessing the site baseline conditions in terms of soil and groundwater quality, predicting the atmospheric dispersion of the pollutants released by the site stacks, and assessing the health risks for the neighbouring population.

The health risk assessment was conducted for direct exposure of the neighbouring population through inhalation of air following the atmospheric dispersion of emissions from the thermal power plant. Health risk assessment for indirect exposure was also conducted. This includes ingestion via the soil, sugar and maternal milk as a result of dust deposits on the ground and in the neighbouring sugar cane fields.

The simulation of atmospheric emissions dispersion and the quantitative health risk assessment were validated by the French National Institute for Industrial Environment and Risks (INERIS) during a third-party expert appraisal requested by the Regional Directorate for Industry,



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