Independent Safety Assessment mission:
Metro lines 3 & 6 of Santiago de Chile

Customer: METRO DE SANTIAGO
Place of execution: Santiago (Chile)
Project duration : 2012 - 2018
Team: 1 Project Manager and 11 assessors

PROJECT'S DESCRIPTION:

The metro lines 3 and 6 the most ambitious project in the history of the Santiago Metro and one of the most important national infrastructure milestones under execution. It is expected to accommodate over a million ~~potential~~ passengers in the network with 28 new stations.

The metro line 3 connects the commune of Huechuraba in the north of the city with the city centre, where most economic activity is concentrated, and the centre with the communes of Ñuñoa, La Reina and Peñalolén in the east side of Santiago.

The metro line 6 connects the commune of Cerrillos, in the south west of the city, with Providencia in the east of the city.

Both lines are connected at Lo Valledor station, and with the Transantiago bus network at Avenida Pedro Aguirre Cerda, Avenida Departamental, Avenida Santa Rosa and Avenida Grecia.

SCOPE OF WORK:

Certifer has carried out an ISA mission on the metro of Santiago, by ensuring that all creation or modification affecting safety has been properly specified and implemented by covering the following aspects:

- The overall project safety systems and trains,
- Operation and Maintenance (Review Procedures, manuals ...)
- The Rolling stock
- The operation of CBTC system
- Platform Screen Doors The system tracks and catenary,
- The electrical system,
- Control center,
- Security systems, eg fire detection system, ventilation system, Process and Evacuation devices, other,
- Safety of interfaces between systems,
- Risk exported to the operator and the maintainer
- Interfaces with engineering, civil works and structural works.

The standards used to carry out this mission are:

- EN50126
- EN 50129
- EN62267
- ISO 9000-3
- EN50128
- NFPA 130
- ISO 9001

The higher the risk of death or accident, due to poor specification or implementation of the modification, the greater the importance of a systematic and rigorous approach to independent safety assessment.
The independent safety assessment shall lead to the provision of an independent opinion (independent from any person involved in the design, development or operation), showing that the safety requirements of a system are appropriate for its intended use and that it meets all safety requirements.