

Independent Safety Assessment: *Metro line 2 of Lima*

Customer : OSITRAN
 Place of execution : Lima (Peru)
 Project duration: 2015 - 2020
 Team : 1 Project manager and 10 assessors



PROJECT'S DESCRIPTION:

The objective of the Lima Metro Line Two Project for Peru is to provide a major east-west axis (Ate-Lima-Callao) of the Lima-Callao Metropolitan Region with a modern and integrated mass transit system that will improve accessibility to jobs and services in the area of influence of the Lima Metro Line Two and the Gambetta Branch of Line Four. The project consists of a single Component: 'support for the construction of the lima metro line two'. The Metro Line Two Project includes the implementation of 35 Km of new urban rail infrastructure, to include the support for the provision of the following:

- the construction of 35 stations with, at a minimum, physical integration to the existing Metro Line One and Metropolitan BRT
- Construction of approximately 27.3 Km of tunnel along the Line two corridor with one rail yard
- Construction of approximately 7.7 Km segment of the future line four branch with one rail yard;
- The provision and installation of the necessary rolling stock, electrical, control, telecommunications, and fare systems for operation of the Metro Line two.

The project will be entirely underground with approximately 32 shafts for ventilation and emergencies, one additional emergency shaft, two rail yards, and electromechanical, structural and rail facilities.

SCOPE OF WORK:

CERTIFER is working closely with OSITRAN (EL ORGANISMO SUPERVISOR DE LA INVERSIÓN EN INFRAESTRUCTURA DE TRANSPORTE DE USO PÚBLICO) which is the employer and is working with EPC consortium from the design stage to the commissioning of the line (Operation and Maintenance aspects are also included in the scope of work) on the following aspects:

- Global System,
- Operation and maintenance,
- Control Command Signaling System,
- Rolling Stock,
- Catenary,
- Energy power supply,
- Tracks,
- Platform Screen Doors,
- Control Center,
- Safety aspects in stations,
- Infrastructure,
- Safety Systems in tunnels as fire detection system, air supply system, evacuation process and device,
- Interfaces between subsystems,
- Exported risks to operator and maintenor.

The Independent Safety Assessment is a tool allowing the different actors of the project to ensure that a creation or a change impacting safety is correctly specified and implemented.

The more the risk of death or accident, linked to a bad specification or implementation of the change or creation, is high, the more a systematic & rigorous approach of the Independent Safety Assessment is important.

The Independent Safety Assessment leads to the issuing of a judgment, distinct & independent from any personal design, development or operating system, showing that a system's safety requirements are suited for the planned application, and that this system meets all the safety requirements.