Abstract

The challenge during this project was to create an electrical enclosure that was going to be positioned at the different sites of the Socorro project. These sites find themselves near the sea and in proximity with water. Due to this, the environment will be fluctuating during the year. These fluctuations mean that the temperatures will be very low during the winter period and will increase in summer. The same goes for the levels of humidity. We also have water that is a dangerous element. When we have electric circuits and high voltages, we need to be sure that our installation (electrical enclosure) that will protect our equipment is correctly secured. The goal of this project is to create an electrical enclosure that will resist to jetting water coming from the waves, but also that will be able to maintain a constant ambient temperature in the electrical enclosure during all year long. It will also need to protect the inside of the electrical enclosure against water accumulation that will occur due to condensation and humidity. The assembly of the electrical enclosure was put in place and was tested to ensure the correct functioning of the system. This electrical enclosure has thus answered the requirements of the project and is ready for its deployment on the sites dedicated to this project.

<u>Keywords</u>: Corrosion rate, Socorro, Electrical enclosure, Temperature control, Enclosure resistance, Water