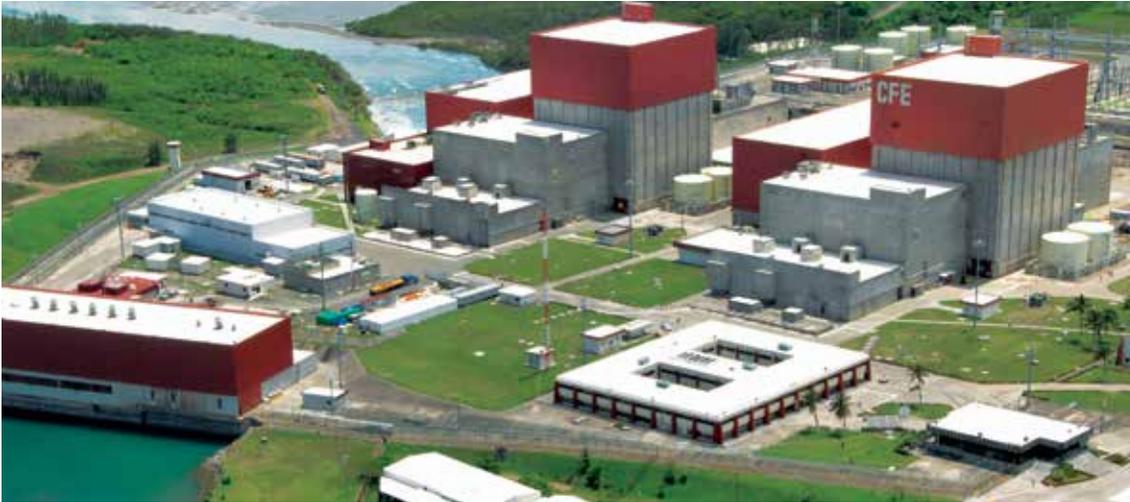




COMISIÓN FEDERAL DE ELECTRICIDAD, LAGUNA VERDE NUCLEAR POWER PLANT

UPGRADES ITS SYSTEM TO INCREASE THE COMMUNICATION AVAILABILITY



Migrating to a digital radio communications system provided by Motorola Solutions enables Laguna Verde to improve the communication security protocols, ensuring greater coverage and better audio transmission and reception.

THE COMPANY

Mexican state-owned **Comisión Federal de Electricidad (CFE)** generates, transmits, distributes and markets electric power for almost 35.9 million customers, representing over 100 million people. Every year, the CFE adds more than a million new customers.

CFE produces electric power using various technologies and different primary energy sources. For this purpose, it has thermoelectric, hydroelectric, coal-fired, geothermal and wind powered plants and facilities, as well as one nuclear power plant: Laguna Verde.

The company's commitment is to offer excellent service, ensuring high quality standards in all its processes — at the same level of the best electric companies in the world.

The Laguna Verde plant generates electricity from nuclear power, with excellent quality and at a competitive cost. To this end, the company holds its plants to the highest security standards, supported by continuous staff training and a deep commitment to the environment.

THE CHALLENGE

CFE had been using a SmartZone analog communications system from Motorola for many years. The company needed to upgrade the system to gain long-term advantages, while protecting the original investment by re-using most of the existing infrastructure, such as Quantar repeaters and portable digital radios.

As the Digital Trunking System is the the External Radiological Emergency Plan (PERE) primary communication and notification network, it was necessary to expand coverage area and ensure excellent audio quality for voice communications throughout the ten government agencies.

THE SOLUTION

After identifying the need to upgrade its communications system, CFE chose to migrate its Motorola SmartZone analog system to a Motorola Solutions' ASTRO® 25 digital system, extending the plant's communications coverage area by adding a repeater site.

DEPLOYMENT SUMMARY

Company:

Comisión Federal de Electricidad (CFE)

Website:

www.cfe.gob.mx

Location:

Mexico

Vertical Market:

Public Utilities

Project:

Upgrade and expansion of the communications system

Motorola Products:

- Equipment for the upgrade of master sites
 - Equipment for telephone interconnect
 - Upgrade software for ASTRO 25 repeater sites
 - Upgrade of 5 SmartZone Quantar™ Sites to ASTRO 25 Platform:
 - Site 01 Laguna Verde (3 Channels)
 - Site 02 Sombrero (9 Channels)
 - Site 03 La Mancha (10 Channels)
 - Site 04 Simil (9 Channels)
 - Site 05 Lajas (8 Channels)
 - One MIP 5000 console system
 - Expandable ASTRO 25 GTR 8000 repeater site
 - Site 06 Chiconquiaco (5 Channels)
 - Radio upgrade to ASTRO 25
 - XTS 2250 digital portable radios type I.5 with ASTRO 25 functionality
 - XTL 2500 digital portable radios with ASTRO 25 functionality
 - Services for the upgrade and integration of SmartZone 3.Z System to ASTRO 25 Platform
- ### Benefits:
- Reduction of investment costs by using the existing infrastructure
 - Increased coverage in the operation area
 - Enhanced audio transmission and reception
 - Weather-resistant equipment
 - Easy system management
 - More secure communications system

CASE STUDY

CFE Laguna Verde

To complement the ASTRO 25 digital system, CFE Laguna Verde acquired the following solutions: Upgrade software for ASTRO 25 repeater sites, one MIP 5000 console system, ASTRO 25 GTR 8000 repeater site, XTS2500 and XTL5000 digital radios and 3-year technical support.

The increased communication capacity achieved through the migration to the selected technology allowed the company to re-use most of its existing infrastructure and to quickly provide users with training in the proper use and knowledge of all the features and benefits of the new system.

THE BENEFITS

The solution provided the Laguna Verde plant with several benefits, including:

- Better audio transmission and reception
- Easier integration with the customer's own existing technologies
- The technology deployed is capable of transmitting data in the system for messaging and locating units via GPS.
- Greater area coverage in accordance with the needs.
- Ability to ensure interagency communication through the PERE 's successful compliance with the international rules and standards applicable to nuclear power Generation Plants

Thanks to the above benefits, the Laguna Verde plant has gained the trust of the local residents, enabling CFE to operate as a socially responsible company.



“Our mission at the Laguna Verde plant is to generate quality electricity from nuclear power, under high quality standards and with a strong commitment to the environment. In this respect, technology has become our ally to achieve these goals. Thanks to the solutions provided by Motorola Solutions, we have been able to maintain the trust of nearby residents.”

**Antonio Gómez Abraham,
Communications Advisor, CFE**

“When people's safety is compromised, communications are an essential factor. That is why we constantly innovate our portfolio of security and mission-critical solutions — to provide people with state-of-the-art technologies so that they can respond fast and safely to any disaster or incident, in the moments that matter.”

**José Luis Apan,
General Director, Motorola Solutions México**

For more information, visit
www.motorolasolutions.com/caribbean/astro

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