

INTRODUCTION AND MAIN CONCLUSIONS

INTRODUCTION

At the request of the government of the United Mexican States, an IAEA Operational Safety Review Team (OSART) of international experts visited Laguna Verde Nuclear Power Plant from 1 to 18 October 2012. The purpose of the mission was to review operating practices in the areas of Management Organization and Administration; Training and Qualification; Operations; Maintenance; Technical support; Operating experience, Radiation protection; Chemistry; Emergency planning and preparedness and Severe Accident Management. In addition, an exchange of technical experience and knowledge took place between the experts and their plant counterparts on how the common goal of excellence in operational safety could be further pursued.

The Laguna Verde OSART mission was the 169th in the programme, which began in 1982. The team was composed of experts from Belgium, Canada, the European Commission, France, Hungary, Slovak Republic, South Africa, Sweden, the United Kingdom, and the IAEA staff members. The collective nuclear power experience of the team was approximately 331 years.

The two units on the site are operated by the “Comision Federal de Electricidad” . Both units are General Electric BWR-5 with MARK-II containment, each unit generating 810 MWe. Unit 1 started commercial operation in 1990 and Unit 2 in 1995. There are approximately 1210 permanent workers on the site.

Before visiting the plant, the team studied information provided by the IAEA and the Laguna Verde plant to familiarize themselves with the plant's main features and operating performance, staff organization and responsibilities, and important programmes and procedures. During the mission, the team reviewed many of the plant's programmes and procedures in depth, examined indicators of the plant's performance, observed work in progress, and held in-depth discussions with plant personnel.

Throughout the review, the exchange of information between the OSART experts and plant personnel was open, professional and productive. Emphasis was placed on assessing the effectiveness of operational safety rather than simply the content of programmes. The conclusions of the OSART team were based on the plant's performance compared with the IAEA Safety Standards.

It should be noted that the plant, by regulatory rule, must adhere to the regulation of the country of the reactors supplier, which has been adopted by the Mexican regulator, and to Mexican norms as dictated by the regulator.

The following report is produced to summarize the findings in the review scope, according to the OSART Guidelines document. The text reflects only those areas where the team considers that either a Recommendation, a Suggestion, an Encouragement, a Good Practice or a Good Performance is appropriate. In all other areas of the review scope, where the review did not reveal further safety conclusions at the time of the review, no text is included. This is reflected in the report by the omission of some paragraph numbers where no text is required.

MAIN CONCLUSIONS

The OSART team concluded that the managers of Laguna Verde NPP are committed to improving the operational safety and reliability of their plant. The team found good areas of performance, including the following:

- Extensive benchmarking, self-assessment and the review process on Training and Qualification contributed to a significant enhancement of the initial and continuing training programs at the plant.
- A structured process of identification, evaluation and implementation of lessons learned and good practices from external events has resulted in important safety improvements.
- Public information, education and interaction with external authorities is of a high calibre.

A number of proposals for improvements in operational safety were offered by the team. The most significant proposals include the following:

- The plant should implement an integrated management system to fully achieve its policies, goals and objectives.
- The management of system and equipment defects should be fully implemented and controlled.
- The plant should initiate an effective, overall programme to reduce both collective and individual doses As Low as Reasonably Achievable.
- The plant should ensure that the management of risk from combustible materials is strictly implemented and controlled.
- The plant should implement a Severe Accident Management Program and re-evaluate its implementation schedule.

Laguna Verde management expressed a determination to address the areas identified for improvement and indicated a willingness to accept a follow up visit in about eighteen months.