

## INTRODUCTION AND MAIN CONCLUSIONS

### INTRODUCTION

At the request of the government of the France, an IAEA Operational Safety Review Team (OSART) of international experts visited Dampierre Nuclear Power Plant from 31 August to 17 September 2015. The purpose of the mission was to review operating practices in the areas of Leadership and Management for safety; Training and qualification; Operations; Maintenance; Technical support; Operating Experience Feedback, Radiation protection; Chemistry; Emergency Planning and Response; and 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 Dampierre OSART mission was the 184<sup>th</sup> in the programme, which began in 1982. The team was composed of experts from Belgium, Brazil, Bulgaria, Canada, China, Czech Republic, Finland, Slovak Republic, South Africa, Spain and the UK, together with the IAEA staff members and observers from France, China and Russian Federation. The collective nuclear power experience of the team was approximately 380 years.

Before visiting the plant, the team studied information provided by the IAEA and Dampierre 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 very 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.

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 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 Dampierre NPP are committed to improving the operational safety and reliability of their plant. The team found good areas of performance, including the following:

- effective process to facilitate the transfer of knowledge and know-how across generations during the recruitment process of more than 500 new comers over last 5 years;

- stewardship of a skills training programme for new maintenance employees that provides a credible framework to systematically deliver knowledge and skills;
- software used to better capture lessons learned from post-job debriefings, and their quick and easy integration into subsequent pre-job briefs;
- clear demarcation of zones where satellite telephone signal is available, which results in a reduced risk of a severe accident since this facilitates coordination of accident management activities;
- employees' ability to be innovative while incorporating operating experience from other nuclear power plants;

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

- improve operational practices to ensure that deficiencies are systematically identified in the field;
- enhance the rigor in human performance and supervision in the main control room during operator's actions that impact important primary parameters;
- improve the quality of operational event analyses to ensure root causes and corrective actions are systematically identified;
- consider improvement in the management of emergency drills and exercise to ensure they are adequately implemented and their effectiveness is timely evaluated;
- consider increasing the scope of the guidance provided to the plant staff to mitigate severe accidents, including accidents at multiple units, accidents occurring in reactor shutdown states and spent fuel pool accidents.

Dampierre NPP 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.