

LICENSING ITER IN EUROPE: AN EXAMPLE OF LICENSING A FUSION FACILITY

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ITER being by definition the way to further power plants, its licensing will provide key issues for the next step facilities. In Europe the licensing process for ITER started before any conclusion on a specific site was made for this first of kind fusion experimental reactor, in parallel with the process of negotiations and the Joint Assessment of Specific Sites. In the framework of licensing ITER in Cadarache, a safety report called “Dossier d’Options de Sûreté, DOS” (Safety Objective File) was submitted for examination to the French Safety authorities in March 2002 by CEA (Commissariat à l’Energie Atomique), to act on behalf of a future ITER organisation. After the corresponding examination the Safety Authorities, in this case DGSNR (Direction Générale de la Sûreté Nucléaire et de la Radioprotection) issued a letter with recommendations in November 2002. The following mandatory safety document, which is under preparation, the “Rapport Préliminaire de Sûreté” (RPrS), must take into account these recommendations.

This licensing process is the first for such a fusion device with an assessment value for the tritium inventory in all the installation of 3 kg to be used for research and development. For the first time too, an operator, ITER, explains to the Safety Authorities specific aspects of plasma physics and tokamak operation and associated specific safety issues. From this dialogue, which is part of all the licensing processes in France, lessons are being learnt on how to manage fusion safety related problems in the regulatory framework and which are the main concerns for the Safety Authorities. Five major requests for further clarification have been underlined in the recommendation letter related to materials and activation products, operational limits, decay heat removal, incidental and accidental scenarios and waste management.

In this paper, the status of the answers to these requests and to other issues that will be detailed in the RPrS will be presented from the viewpoint of the European collaboration where EURATOM associations for fusion and EFDA Close Support Units are closely working.