TITLE: Nuclear/Shielding Analyses and Coordinator				PRO 019
REPORTS TO LINE MANAGER: Head of System Analysis Section, Project Office				
DIRECT EMPLOYMENT: NOT REQUIRED GR			GRADE RANGE: P3 ~P4	
DATE WRITTEN: October 17, 2006	DATE REVISED: October 25, 2006		DATE REVISED: December 6, 2006	

Purpose:

Support the Project Office (PO) in matters related to nuclear analyses. Management and control of all nuclear analysis activities required in the ITER project, communicating with component designers, safety group and other related staffs/groups in the whole ITER project, in order to assure effective contribution of nuclear analysis group to ITER construction.

Coordinate and supervise neutronic analyses and R&D activities performed for ITER in the Participant Teams.

Major Duties/Responsibilities:

- Coordination of the preparation of the required computer environment in Cadarache work site and the installation of the necessary software for nuclear analyses.
- Definition of the nuclear analyses needed in the short, medium and long term.
- Plan and define priorities of neutronics assessment proposed by the component designers and the safety group, in accordance with their urgency.
- Define and allocate the necessary resources of man-power and computer to perform requested nuclear analyses.
- Review, follow-up, support, and approve neutronic calculations performed or provided by the ITER Team or provided by the ITER Parties.
- Define tasks in agreement with ITER parties to complete nuclear analyses.
- Prepare data base for the verification of calculation accuracy reviewing past experiments conducted by fusion and fission communities and organize new benchmark experiment if necessary.
- Development of software for nuclear analysis (i.e. CAD/MCNP interface).
- Estimate the effects of the design change and/or evolution on neutronic loads on ITER components and verification that the important and basic nuclear responses are kept within the design limits, not degrading ITER machine performance.

Qualifications Required:

- Good understanding of basic nuclear physics (having degree of PhD will be an advantage).
- Work experience: experience of working for fusion machine and good knowledge of the basic functions of ITER machine and its components.
- Knowledge of nuclear analysis tools: Substantial experience of using nuclear analysis codes, such as radiation transport codes (Monte Carlo and Discrete ordinate methods and other simpler evaluation codes), activation calculation code, and nuclear data processing code.
- Skills: Excellent ability to organize and monitor analysis activities and good communications skills.
- Language knowledge: Good active and passive knowledge of written and spoken English.
- The following additional qualifications will be considered an advantage:

- good knowledge of the computer usage (super computer, cluster machines, stand alone work station);
- o good knowledge of French regulations for radiation safety.

Work Direction and Interfaces:

Report to the Leader of the SAS of the Project Office. Interface with all other ITER departments and divisions. Maintain communications with other organizations within the ITER collaboration.

Authority/Approval Levels:

Has authority and approval levels generally defined by the Head of Project Office for his/her scope of work.

Measures of Effectiveness:

- Successfully support the SAS in achieving the defined objectives.
- Provide comprehensive reports and summaries of the performed and revised analyses.
- Successfully generate and maintain trustworthy, up to date information related to the machine technical scope.
- Successfully maintains effective communications with all organizations interfacing with ITER.