

Busbar Integration Technical Engineer

CEP-104

Reports to Line Manager:	Coil Power supply Section Leader, Electrical Engineering Division, Central Engineering and Plant Support Department	Job Code:	CEP-104
Direct Employment:	Required	Grade:	G4

Purpose

To support the engineering design and integration activities of the Coil Power Supply Section in all matters related to design integration of Direct Current (DC) busbars and instrumentation of the ITER Coil Power Supplies.

To support the design integration activities of the power and control cables for Fast Discharge Units and Switching Networks.

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- Manages the electrical integration and layout of the DC busbars system of the ITER Coil Power Supplies, including line and earthing disconnector, instrumentation and mechanical support;
- Manages the routing of power and control cables for Fast Discharge Units and Switching Networks;
- Follows-up with the ITER Domestic Agencies and subcontractors involved in the design, construction, testing and installation of DC busbars, instrumentation and associated components;
- Follows-up on the implementation of specific rules for segregation, separation and Quality Assurance/Quality Control of busbars and associated components that are dedicated to the interconnection of safety relevant power supply components;
 - Manages interfaces between busbars, power supply components, magnets and the building infrastructure (penetrations, mechanical supports, space reservation, cooling water, etc.);
 - Prepares the documentation and interface control documents related to the components under his/her responsibility;
 - Follows-up with the ITER Computer Aided Design Office involved in the work related to the DC busbar and instrumentation management;
 - Maintains a strong commitment to the implementation and perpetuation of ITER safety program, values and ethics.

Qualifications and Experience

- Education:
 - Degree equivalent to 2-4 years of study after the High School Diploma in Electrical or Electro-mechanical engineering.



• Technical experience:

- At least 8 years' experience in design and installation of complex electrical busbar systems for rated current above 20 kA;
- Candidates with engineering apprenticeship, or technical diploma in electrical installations, or equivalent, may also apply. However, in this case the candidate should have at least 5 years experience in design and installation of complex electrical busbar systems for rated current above 20 kA;
- Knowledge of International Electrotechnical Commission standards for DC busbar and cable installation would be an advantage.
- Project experience:
 - Experience in the design and installation of complex electrical busbar systems for Tokamaks and/or large superconductive magnets would be an advantage.
- Social Skills:
 - Collaborative and positive personality;
 - Ability to work effectively in a multi-cultural environment;
 - Ability to work in a team and to promote team work.
- Language requirements:
 - Fluent in English (written and spoken);

Direct Supervisor and Interfaces

- Reports to the Coil Power Supply Section Leader;
- Interfaces with all members of the Electrical Engineering Division, Magnet Division, building designers, Domestic Agencies and others systems to support excellent design integration and procurement of the DC busbar system.

Authority / Approval Levels

This position has authority and approval levels generally defined by the Coil Power Supply Section Leader for her/his scope of work.

Measures of Effectiveness

- Successfully manages the design integration and procurement of the DC busbars system;
- Successfully follows-up on the procurement of the DC busbars system;
- Successfully manages the design integration of power and control cables for Fast Discharge Units and Switching Networks;
- Successfully supports the work of the ITER Organization and the Domestic Agencies.