SECTION 3C - ELECTRICAL EQUIPMENT

3C.1 230 kV GIS Combined Cycle Block Switchyard

3C.1.1 General

This section covers the requirement for the 230kV GIS combined cycle block switchyard to complete the Plant operation. The 230kV GIS combined cycle block switchyard shall interconnect the generator transformers to EGAT 230kV GIS substation via EGAT 230kV cable. The interconnection between generator transformer and 230kV GIS shall be done by 230kV underground cable and outdoor cable termination. The details of 230kV underground cable and outdoor cable termination shall be described in section 3C.25.

The general technical requirements for the design, manufacture, testing at works, supply, supervision of erection and testing at site of the SF_6 gas insulated switchgear are specified in this section.

Specific ratings, characteristics, features and performance characteristics of 230kV GIS are shown on the accompanying Ratings and Features sheets.

For indoor GIS the building will be equipped with an overhead crane suitable for lifting the heaviest part for installation unless otherwise specified.

The manufacturers shall have supplied record of equipment of the type and rating proposed with successful operation/use for at least three (3) consecutive years in overseas country (not his own country) and at least three (3) substations of with total GIS bays shall not be less than twenty (20). The rating and features of each bay shall be the same or similar rating as EGAT specifies.

Reference record of either the parent or affiliated companies shall not be considered as the record of such manufacturer.

3C.1.2 Material, Workmanship and Design

All materials used in the manufacture of the specified equipment shall be unused, of recent manufacture and of the kind, composition and physical properties be suited to their various purposes and in accordanee with the best engineering practices.

Workmanship shall be of the highest grade and conform to the best modern practice for the manufacture of high grade machinery and eleetrieal equipment.

All work shall be performed by mechanics and electricians skilled in their various trades.

The factory welders shall be qualified personnel. Materials and process specifications needed for welding shall meet the applicable requirements. Field welding of the switchgear is to be avoided to achieve high quality of welding.

Maximum reliability is to be achieved by a minimum amount of erection on site. Subassemblies are to be erected and tested in the factory to a maximum extent. The size of the sub-assemblies should only be limited hy the transport conditions.

Subject to the desire and decision of EGAT, the Contractor may be required to furnish the services of qualified and experienced supervisor(s).

The scope of responsibility of the supervisor on behalf of the Contractor is as follows:

- Supervise and be responsible for the installation, erection, adjustment, field test and commissioning of the equipment.
- Prepare formulation sheets for a check list, test sheet, release form and field report to be discussed with EGAT before performing the installation work.

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