
Preface

It gives me great pleasure to present this practical guide to the technical and purchase managers of the chemical process and related industries for the procurement of equipments. It was observed that considerable time is wasted in unnecessary correspondence with the vendors/manufacturers of plant and machinery in clarifying the exact requirements of the purchaser if these are not clear while floating inquiries. This sometimes led to project delays, cost overruns, inability to stabilise plant operations in time and therefore inability to meet commitments made to the customers.

It is felt that timely and correct procurements of the right type of equipments/machineries with all the required features and constructed with the appropriate (suitable for the intended use) materials of construction (MOC) can ensure a smooth and safe scheduled start-up of the project at the budgeted cost (or minimising cost overruns).

Procurement of the right equipment enables safety in operations and can minimise breakdowns and environmental pollution. In addition, it would be easier to maintain product quality and reduce the cost of production.

I have attempted to explain when to procure new equipment, how to prepare specifications for floating inquiries, and guidelines for detailed technical discussions with vendors in the chemical and related industries.

The guidelines presented cover the common equipment used in chemical plants and related industries and effluent treatment facilities such as pumps, blowers, reactors, heat exchangers, waste heat recovery boilers, heat and acid resistant lining as well as auxiliary equipments and utility services such as water treatment plants, cooling towers, refrigeration systems, DG sets, etc. The management will find judicious investment in essential facilities like maintenance equipments, process control lab, fire fighting, personal safety devices, elevated storage for water useful for safe and efficient working of the plant and hence have been included.

It is hoped that technical and purchase managers will find this book useful for procuring and/or replacing equipments, process technology, raw materials etc. at reasonable cost and will help the projects to be started on schedule. The book is also intended to serve the engineering students in technical institutes and universities and young engineers starting out in their careers for making them familiar with practical aspects of various equipments and machineries before they assume responsibilities in chemical plants.

The book gives a checklist to the plant managements for procurement of the correct equipment in an efficient timeframe insuring that projects are not delayed. It can also increase the readers' understanding for posing the right inquiries to engineers, plant managers, and product vendors when acquiring industrial equipment and supplies.

Suggestions and constructive criticism for improving this book are welcome from persons associated with the chemical process industries. The guidelines are *suggestive* rather than *stipulative*. Obviously, individual requirements will vary as per specific situations.

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