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**Potential Strategies to Prepare a Unique RFQ – The Indian Valve Sourcing and Expediting Series**

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**ABSTRACT**

*Observation and documentation is an integral part of any sourcing and expediting activity. Every Sourcing manager, sourcing engineer, sourcing expeditor, sourcing coordinator must be well aware of the documentation process and what to do and what not to do. Whenever a sourcing office initiates a procurement process, it does so through requests. If a sourcing office wants to compare competitive offers, then it can mass manage through sending Request for Quotation (RFQ). The sourcing office will send a request listing the technical specification and the expected terms and conditions to competitive suppliers and gets back quotations in return. Though the process of generating an RFQ and converting it into a successful Purchase Order (PO) is simple, it has to be done systematically, to avoid chaos in document management. When this process is effectively managed, mass management of quotation and comparison becomes easier and the sourcing office will be able to make decisions in a systematic manner. However, sourcing offices adhere to the procurement policies of their Parent Organization and hence the objective of any valve sourcing office in India has to be two fold. One, to negotiate contract terms, such that the expected product quality is achieved within the prescribed financial quota. Second, the sourcing office will have to follow the norms and guidelines provided by the parent organization. Hence, it is the duty of the Regional Sourcing Manager to perfectly compose an RFQ, such that the RFQ remains comprehensive. This article rides through the basic RFQ architecture and provides guidelines to compose an attractive RFQ without compromising on the procurement policies of the Parent Organization.*

**Keywords:** Purchase Order; Parent Organization; RFQ; Sourcing.

**1.0 Introduction**

‘RFQ’ or ‘Request for Quotation’ is a document prepared by the sourcing team, to invite quotations from valuable suppliers/vendors for a product or a service. Documentation is an inevitable part of the sourcing office. Right from RFQ to the packaging slip, every document in sourcing and expediting is of its own importance.

Hence a sourcing manager must provide sufficient training to his/her team to improve the quality of documentation. RFQ is an important document as it reflects the quality of the sourcing company.

For example, if a Valve Manufacturing company at Sweden wants to procure a finite quantity of 6” API 600 Class 150 Gate Valve Body from India, then the company’s sourcing office at India will release an RFQ to eminent suppliers who will be capable of supplying the required product at the required specification.

The list of suppliers/vendors to whom the RFQ is sent can be based on the supplier appraisal. However in substantial cases, RFQs are sent to suppliers where the sourcing office has already established a positive relationship. Care should be taken by the sourcing manager that during appraisal no qualifying supplier is missed out without evaluating. Supplier appraisals has been discussed in the previous episodes of the series. In response to the RFQ, suppliers provide a quotation which shall be compared by the Sourcing office and in discussion with the Headquarters of the procuring company, the soliciting sourcing office shall release the Purchase Order thereon.

It is necessary that the sourcing office handles the request documents with specialized care. In general, request documents shall be classified into the following types,

1. Request for Quotations (RFQ)
2. Request for Tender (RFT)
3. Request for Information (RFI)

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4. Request for Proposal (RFP)

It is necessary that the soliciting sourcing office practices certain data elicitation techniques such that the work progresses in a systematic way. Data elicitation techniques are very important that, only with the quality of data elicitation, RFQ can be effectively prepared. There are several categories of data elicitation and the main techniques that are useful for the preparation of RFQs are:

1. Document Analysis – Cognitive Technique [1]– [5]
2. QFD [1], [5]
3. Introspection [2], [6]
4. Team Building [3]
5. Issues List [3]
6. Questionnaires [7], [8]
7. Photo Elicitation Technique [9]

**Table 1: Characteristics of Request Documents**

Document	Characteristics
RFQ	It is a document used to invite quotations from suppliers/vendors.
RFT	It is a document used to invite an offer from suppliers/vendors through a detailed tender.
RFI	It is a document sent to a specific company / multiple companies seeking information about a particular domain. This will be used for detailed understanding on the domain
RFP	It is a document requesting solution to a specific issue/ requesting a procedural suggestion for a specific project. It may be based on RFI

Document Analysis. Document analysis is an act of gathering information indirectly, with or without the intervention of a human expert [4]. Each member of the valve sourcing team must have sound expertise in this skill.

When an RFQ is sent and a quotation has been received from a competitive supplier, the soliciting sourcing team must be able to decipher the quotation and must make a detailed analysis on it. Document analysis must be objective based and the sourcing engineer/expeditor working on it must be trained that he/she extracts only the required information and leaves out the unnecessary.

QFD. Quality Function Deployment is a data elicitation technique where the customer demand and the quality are of most concern. In the QFD data elicitation technique, the demand and the expectations of the customer are reflected in the whole process of the product development, which will assure the quality of the product [5]. The valve sourcing team must be able to use QFD as a tool and must collect linguistic data and must deploy them during contract negotiations. The expectations of the customer should be set as a priority while discussing the terms with the supplier. To make the process even better, it is suggested that the RFQ is prepared prioritizing the voice of the customer

Introspection. Introspection is a technique of examination where in the causal factors for a negative outcome are analyzed. It is suggested that the analyst to be an expert in business processes and the technique will be effective only when the analyst is unacquainted with the goals of the system [6].

Team Building. Team building is a second order elicitation technique, which through knowledge transfer from a team, synthesizes data and aids first order data elicitation techniques [3]. Team building will improve the ergonomic environment of the valve sourcing team and will also improve the coordination among the team members. Any sourcing office will have a sourcing and expediting team, an inspection team and also an administration team. Care should be taken by the sourcing manager, such that there is coordination in activities within the team.

Issues List. It is an important data elicitation technique. A team of experts should be employed to maintain outstanding issues and this shall be discussed in review meetings to improve the quality of sourcing as well as the sourcing documentation.

Questionnaire. It is the most important data elicitation technique as the RFQ document itself can be treated as a questionnaire. Hence data elicitation through questionnaire should be an art practiced by sourcing engineers and sourcing manager. Questionnaire is a data elicitation technique where the respondent is provided with a question and the response is valued and taken into consideration. In a typical questionnaire, questions can be the following forms,

1. ‘Yes’ or ‘No’ type
2. Open ended questions (Descriptive answers)
3. Multiple Choice Questions (with a single answer)

4. Multiple Choice Questions (with more than a single answer)
5. Rate on a scale of 0-5 or 0-10
6. Questions having choices as Disagree, Neutral, Agree, etc type.

It is suggested that the vocabulary of the questionnaire is to be of the highest order. Respondent must be able to understand the request of the soliciting sourcing office and must be able to provide effective responses. Hence the sequence of questions and the intensity of the vocabulary are very important in this data elicitation technique.

Photo Elicitation Technique. Douglas Harper et al [9] define photo elicitation as a simple idea of inserting photograph into a research interview. Though Harper suggests it for research interview, this data elicitation technique has the potential to be used for data elicitation for valve sourcing. Photographs are potential evidence in Quality Inspections. Many visual inspection methodologies are effectively photographed and are used during discussions between the sourcing team and the supplier team. Hence the sourcing team must cultivate the habit of using such non-verbal identities for data elicitation. Photo elicitation technique will be dealt in a detailed way in the future episode of the series.

Thus, it is very important that sourcing engineers gain knowledge on various data elicitation techniques and apply them appropriately.

## 2.0 RFQ Architecture

Each sourcing office has its own style of RFQ. But there are a few points in common. In general, it is suggested that the RFQ shall have the following sections for easiness,

1. Organization details and Invitation
2. Synopsis of procurement
3. Evaluation Criteria (Optional)
4. Terms and Conditions
5. Technical Specification and Appendix

Sourcing engineers, expeditors must understand the difference between procurement through RFQ and RFT (Request for Tender). RFTs will be used in case of Tender. When procuring through Tender, the RFT is advertised socially and any supplier is allowed to bid their cost against the requirement. RFTs are not limited to particular

suppliers whereas RFQs are specific to limited quantity of suppliers. RFTs are more comprehensive than RFQs.

## 3.0 Organization Details and Invitation

This section shall be the first in the RFQ and shall contain the following entities:

1. RFQ Call Number/ RFQ Reference Number
2. Important Dates and Submission Mode
3. Invitation Note and Requirement
4. Procurement officer in-charge name and contact details

The following points are suggested to be included in this section for preparing a more comprehensive RFQ:

1. The RFQ Reference Number must be unique, as any enquiry from the supplier end before quoting will be with reference to that unique number. No two RFQs shall have a single reference number.
2. Deadlines are very important in quotations. Hence this section of the RFQ shall clearly mention the date of call, last date of submission (with time). The RFQ must mention clearly the mode of submission (postal/ e-mail / Electronic submission). Electronic submissions shall be used preferably as it is fast and will have less paper management.
3. The RFQ shall address the supplier mentioning the company name and address. No RFQ shall be unaddressed or without Salutation. Below the salutation, the RFQ shall describe the requirement in about 25-50 words. The vocabulary used in this section shall be of the highest order.

For example, this section of the RFQ is suggested to be of the following format:

**Table 2. RFQ Sample – Invitation**

<b>XXYY Industries, Coimbatore (Letter Head)</b>	
<b><u>Request for Quotation</u></b>	
<b>RFQ No.</b>	: XX/31/2019/01
<b>Date of Advertisement</b>	: 26-06-2019
<b>Submission of Quotes</b>	: Hand Delivered to: 23, AA Road, BB, CC
<b>Deadline for submission</b>	: 26-07-2019 ( 2.00 pm)
<b>Procurement Officer</b>	: Mr. Gokul,

Senior sourcing expeditor,  
 XXYY Industries,  
 Coimbatore  
Phone: +91 - 9629431403  
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To  
 AA BB Casting,  
 Coimbatore.  
 RFQ: Gate Valve Body Casting – reg.  
 XXYY Industries is requesting quotes for 26 No. of Gate Valve Body casting of specification as mentioned in the specification sheet. Quotes shall be inclusive of transportation cost and other taxes. Kindly provide your quotes as per the attached format, being valid for a period of 30 days.

supplier. The listed documents shall be required immediately with the response to RFQ or shall be required during the manufacturing process. It is the duty of the soliciting sourcing office to list the documents that are required with the quote that will be required to be submitted at a later stage

- a. Detailed quote with Price (Price Schedule) in INR (International suppliers are suggested to provide their quote in USD)
  - b. Company Profile with details of the supplier’s representative to contact.
  - c. Inspection Test Plan (Supplier end)
  - d. List of Inspection Test Reports
  - e. List of Material Test Reports
  - f. Details of Third Party Inspection
  - g. Legal Documents from suppliers (if any)
  - h. Compliance Statement (Most for Govt.)
4. In addition to the above documents, the supplier shall also provide additional documents to the soliciting sourcing office, if required.
  5. ISO/IEC 17020 defines various requirements to carry out third party inspection services [10] and hence the supplier is expected to comply with the standards while providing Inspection Test Plans and Third Party Inspection Plans. It is in practice that some soliciting sourcing offices provide a priority preference list for Third Party Inspection.

Soliciting sourcing offices may add additional information in the invitation, if it is mandatorily required to be stated in the first priority. Soliciting sourcing companies must always be cautious that the RFQ is completely comprehensive.

**4.0 Synopsis of Procurement**

Synopsis of procurement section is suggested to have the following entities.

1. Description Table of the requirements
2. List of documents required to be submitted by the supplier.

The following points are suggested to be included in this section,

1. The Description Table should be specific and must be understood very easily. The nomenclature used in this table must be highly technical. Table 3 provides a sample format for the Description Table

**Table 3: Description Table**

Part No.:	Part Name	Required Quantity
*	#	26
*	#	21

2. If the RFQ is a digital document, the Description Table shall be linked to the Appendix containing specification part drawings.
3. In case of valve sourcing, the following documents should be requested from the quoting

**5.0 Evaluation Criteria**

This is the most important section of the RFQ. It is under the discretion of the Sourcing Manager to include this section in the RFQ or to make it confidential. The evaluation process for a response to RFQ shall be point based and is suggested to contain the following features,

1. Responses to RFQ shall be categorized into High Priority, Medium Priority and Low Priority based on the score point secured for each quotation. Care should be taken by the sourcing manager that the entire evaluation pattern is transparent and honest scales are used.
2. It is suggested that a three stage evaluation process is followed:
  - a. Phase I: Completeness Evaluation.
  - b. Phase II: Budget Based Evaluation.
  - c. Phase III: Appraisal Based Evaluation.
3. In Phase I, the quotations must be scanned for completeness. The quotations must be checked

whether it provides all details requested by the soliciting sourcing office. Incomplete quotations shall be rejected in the stage (based on intensity of the incompleteness). Sourcing managers must decide on the optional responses and the mandatory responses for requirements from the supplier. If there is incompleteness in mandatory requirements, then the incompleteness shall be prioritized.

4. Phase II is based on budgetary strategies. Too expensive quotes shall be rejected. This shall be based on a discussion with the Parent Organization (soliciting) management representative as well as the sourcing team. Care should be taken than while opting for the least cost, there should not be any compromise in the expected product quality.
5. In Phase III, supplier appraisal shall be given due importance. Sourcing offices are requested to perform a supplier appraisal before placing any order with the supplier. Supplier appraisals shall be desktop appraisals or field appraisals [11]. The major outcomes from the supplier appraisal must be considered in Phase III. A few evaluation questions that shall be posed in Phase III are,
  - a. How many Purchase Orders were previously placed with the supplier?
  - b. During previous Purchase Orders, did the supplier deliver the products with the expected quality?
  - c. Did the supplier operate as per the quoted budget?
  - d. Was the product delivered within the stipulated time?
  - e. Is the supplier potential of delivering the products with the expected quality? (for newly identified suppliers)
  - f. Does the supplier have any black mark / bad reputation among friend zone companies? If so. Why? (for newly identified suppliers)

Thus, the evaluation pattern is suggested to be specific, transparent and objective based. It is suggested to perform a point based evaluation and the selection of quotes for further processing shall be based on the points secured by the supplier. The entire process of evaluation may or may not be included in the RFQ. It depends on the discretion of

the sourcing manager. The advantages of including the evaluation criteria in the RFQ are:

1. The supplier will have access to a more transparent system and hence it will help the supplier to prepare their quote in a more comprehensive manner.
2. Suppliers will clearly understand the importance of each and every requirement the soliciting sourcing company has requested, and shall act accordingly.
3. It will be very easy for suppliers to prepare a checklist over the quotation.
4. However there are few disadvantages too,
  1. Suppliers will get access to the evaluation strategy of the soliciting sourcing company. Some suppliers may fake the data and also will try to make unrealizable promises.
  2. Supplier will focus on scoring marks more than focusing on complying with the quality standards.

## 6.0 Terms and Conditions

Terms and Conditions must reflect a morale agreement between the supplier and the soliciting sourcing office. It list the activities that must happen in a prescribed way and also lists the activities that must not take place during the course of manufacturing and supply. Here are a few terms and conditions, which are suggested to be clearly defined by the soliciting sourcing office.

1. The Terms and conditions section shall preferably start with “Definitions”. Define every key word that is used in the RFQ and in contract establishment. This must be mandatory to ensure that the RFQ is productive.
2. The expected validity period for the quotation shall be clearly mentioned in the Terms and Conditions. It is suggested to expect a minimum of 30 days and a maximum of 90 days from the supplier.
3. It is suggested to clearly mention in the RFQ that RFQ is not a Purchase Order and no promises are made with the Purchase Order formalities at this stage.
4. The payment norms shall be clearly mentioned in this section. This is mandatory as to avoid confusions and chaos during the course of manufacturing.

5. This section should clearly state the expected date of delivery, location of delivery.
6. The sub-contracting norms shall also be listed in this section. Necessary documents for subcontracting (if any) shall also be requested.
7. The sourcing officer shall suggest the quoting supplier to provide a guarantee that only trained operators will be employed in the manufacturing processes.
8. The decision of the company regarding "Repeat Order" is also suggested to be listed in this section.

In addition to the above, the soliciting sourcing office is suggested to clearly define various important conditions such as related to,

1. Liability.
2. Ethical Practices.
3. Intellectual Property Rights (IPR)
4. Inspection Test Plans
5. Taxes
6. Supplier Obligations
7. Contract Management
8. Purchase Procedure
9. Warranty and Guarantee
10. Defect Management
11. Licenses
12. Insurance
13. Shipping and Logistic Norms
14. Performance Bank Guarantee (if required)
15. Language of quotation

### **7.0 Technical Specification and Appendix**

This section wholly contains engineering data and must be prepared strictly in accordance to the complying standards. In valve sourcing, substantial cases comply with ISO /API Standards. The following components constitute this section of RFQ for Valve Sourcing.

1. Detailed drawings with necessary specifications.
2. Complying standards (Component wise)
3. Material Specification
4. Painting and Marking Requirements
5. Alloy Verification Procedure requirements

If the drawings are representing an assembly or a sub-assembly, it is suggested to define the scope of the diagram. The scope shall define the diagram in terms of cost minimization as well as material minimization. The soliciting sourcing company shall

describe this in a brief manner and it is suggested not to enclose elaborate descriptions. Certifications that are required for inspection shall be tabulated at this section and shall be presented to the supplier.

This will enable the quoting supplier to look upon the facilities at his station and to plan accordingly.

This will be helpful for the supplier to perform a self-evaluation whether the supplier will be ready to provide the requirements as per the soliciting sourcing office's expectations.

It is suggested to mention the painting color requirements. The expected life of the painting color used shall also be mentioned in this section. It is suggested to obtain the color coding procedure from the quoting supplier.

Also the chemical reactivity of the paint color material shall also be requested. Wall thickness for painting shall also be defined.

RFQ shall also mention the criteria for the termination for the Purchase Order and the consequences of rejection. Supportive agreements which are applicable for negative situations shall also be defined in the annexure.

### **8.0 Conclusions**

Documentation can be called as an art. It is an act of communication to convey the sourcing company's expectations in a formal and constructive way. It is through certain humanitarian based techniques, an RFQ can be successfully converted to a Purchase Order. Anything that is conveyed well in advance shall not result in a haphazard ending.

Technically, it is suggested to have a detailed RFQ format for each and every company customizing for their needs.

The format suggested in this research work will hold good for valve sourcing and also provides details on various documents that are required for valve sourcing.

Sourcing managers are requested to provide sufficient training to their sourcing expeditors, coordinators and inspectors to acquire skills on various data elicitation techniques. Techniques like Issues list will be of benefit to expeditors as they will acquire problem solving skills as well. Hence with proper data elicitation techniques, it would be of great use to apply these concepts to prepare a comprehensive RFQ.

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