1.0 Introduction:

1.1 Quality Assurance directorates are dealing with Multi Sourcing and Vendor development activities. The existing vendors are re-assessed for continuation of their approval. For some items dealt by directorates, there are quite a large number of vendors. With limited resources, it becomes difficult to organize re-assessment in time. For want of any transparent system, the cases have to be dealt uniformly and visits are being organized. The vendor rating system can provide a transparent system, using which, decision can be taken to dispense with field visits for re-assessment. The rating system can be utilized as other decision making tools also.

1.2 IS:12040-2001 provides the broad guidelines for development of Vendor Rating System. The standard stipulates Quality, Price, Delivery, Service and system as five key factors to work out rating system. As RDSO maintains vendor list basically on quality consideration, for our purpose, price may not be a very significant factor. The information on price aspect will not be readily available and data base will be very vast, comprising number of tenders from number of purchasing units.

The standard also stipulate that need for development of vendor rating system should be decided keeping Cost of vendor rating system Vs anticipated returns and other factors in view. Accordingly, the rating system based on four key factors Viz Quality, Delivery, service and system will be good enough to meet the requirement at RDSO.

2.0 Criteria for Vendor Rating System:

The Vendor Rating is proposed to be done Based on three criteria:

1. Quality performance of vendor: Based on Quality of Products produced during period under consideration
2. Delivery Performance of Vendor: Based on supply performance of vendor against orders within delivery Period
3. Service & System performance of vendor: Based on General Performance Such as reassessment, Updating infrastructure etc. and maintenance of Quality control systems.

3.0 Period of Evaluation:

The financial year shall be kept as period for evaluation. The performance for period April-Mar shall be evaluated and finalized by June every year for previous financial year.

The information to be obtained from consignee shall be collected continuously through on line portals every month, so that data is not skewed and it is available in time.
4.0 Determination of Vendor Rating:

4.1 The standard lays down the comparative weightage of various factors based on criticality of component on quality and delivery consideration. For majority of items for which vendor list is maintained, the Quality shall be treated as Critical and delivery as Sub Critical Path. For this classification, the standard lays down following weightages:

- Quality: 35%
- Delivery: 20%
- Price: 10%
- Service: 5%
- System: 30%

As indicated in para 1.2, the price rating is not considered to be included. The weightage of price rating can be included in delivery.

Considering the fact that majority of products are manufactured for railway use and before approval the firms are assessed for system as per well laid down Schedule of technical requirement and all the product is inspected before supply, too much weightage to system rating is not desirable. The part weightage of System performance (about 15%) need to included in Quality performance.

The service and system performance are having common indicators for RDSO approved sources, accordingly these are considered to be included in one group.

Accordingly, following weightage is considered appropriate:

- Quality Performance: 50%
- Delivery Performance: 35%
- Service & System Performance: 15%

4.2 The overall Vendor Rating will be weighted average of three parameters indicated above. Accordingly, Overall Vendor Rating VR is to be determined based on following formula:

\[
VR = \frac{50*QR + 35*DR + 15*SR}{100}
\]

Where
- \(QR\) = Quality Rating
- \(DR\) = Delivery Rating
- \(SR\) = Service & System Rating

5.0 Determination of Quality Rating:

The quality of product supplied is adjudged based on rejection during product inspection, performance of samples in consignee end testing (wherever applicable) and field complaints from consignee. As consignee end testing is not done for all products and this exercise is similar to consignee complaints, the quality rating is proposed to have two components as under:

a) Quality Rating based on Product inspection results: Weightage : 60%
b) Quality Rating based on Consignee end results and/or field complaints: weightage: 40%

The overall quality rating (QR) is to be worked out based on following formula:

\[ QR = 0.60 \times QR1 + 0.40 \times QR2 \]

Where
- QR1 = Quality Rating in Purchase Inspection of Product
- QR2 = Quality Rating Based on Samples testing from Consignee End and/or Field Complaints

5.1 Determination of Quality Rating in Purchase Inspection (QR1):

The IS 12040 lays down the formula which includes Quantity accepted, Quantity accepted with deviation, quantity accepted with rectification as three category for total quantity supplied. In Railways, the acceptance with deviation is not applicable. The Material rejected is to be reoffered, as such separate category of Quantity accepted with rectification is also not applicable.

Accordingly, the formula is modified as under:

\[ QR1 = \frac{Q1}{Q} \times 100 \]

Where
- Q1 = Total Quantity Accepted during product inspection during period under consideration.
- Q = Total Quantity offered during product inspection during period under consideration.

5.2 Determination of Quality Rating Based on Consignee End sample testing and field complaints (QR2):

This value consists of two components:

.1 Determination of Quality Rating based on Result of consignee end checks: (QR2A)

The values to be given based on testing results as under:

- QR2A = 100 If First Sample has passed in Consignee end Check
- QR2A = 40  If First Sample has failed but second sample has passed in Consignee end Check
- QR2A = 0   If both Samples fail

In case consignee end check has not been done for firm, if item is included in consignee end checks, QR2A Values for such firms will be 80.

.2 Determination of Quality Rating Based on Field Complaints (QR2B):

The values to be given will be based on number of established complaints received from consignee during period under consideration. In case of no complaint, full value to be given and in case of 4 or more complaint, no value is to be given. In between distribution will be as under:

- QR2B = 100 If no field Complaint
- QR2B = 80  If one field Complaint
QR2B = 55 If Two field Complaint
QR2B = 25 If Three field Complaint
QR2B = 0 If Four or more field Complaint

3. Determination of QR2:

a) For Items where regular consignee end checks are done:
   \[ QR2 = \frac{(QR2A+QR2B)}{2} \]

b) For items where regular consignee end checks are not done:
   \[ QR2 = QR2B \]

6.0 Determination of Delivery Rating:

6.1 Delivery Rating (DR) is to be worked out by following formula:

\[ DR = \frac{(Q1/Q) \ast (T/(T\ast p + T1\ast q))}{Q} \]

Where
- Q = Total ordered Quantity
- Q1 = Quantity supplied within D.P.
- T = Delivery Period
- T1 = time taken to supply full quantity
- p = Q1/Q
- q = 1 - p

Above formula is as per provisions of IS 12040.

6.2 If vendor has not undertaken any supply during period under consideration, The DR value shall be Zero (0) for such vendors. However a note shall be indicated in vendor rating sheet. If firm does not undertake any supply for two consecutive years, the performance be treated as unsatisfactory and action shall be taken.

7.0 Determination of Service and System Rating:

The rating is basically reflective of vendors performance for compliance of provisions of approval and instructions issued by RDSO for updation of documents/ infrastructure and maintenance of proper systems as found out during audits/ inspections etc.

Service & System Rating (SR) to be worked out on following formula:

\[ SR = \frac{(SR1 + SR2)}{2} \]

Where SR1 = Service Rating
SR2 = System Rating

7.1 Determination of Service Rating in timely action about Reassessment (SR1):

This will include the following:
a) **Timely Re-assessment**: Weightage 25% of SR1
   - Full Marks: If timely application and timely successful reassessment
   - 75% Marks: If timely application but delay in reassessment in form of extension by firm etc.
   - 50% Marks: If delayed application but reassessment is got done on scheduled date
   - 0% Marks: Unsuccessful re-assessment such as Failure of samples during reassessment etc

b) **Timely action and compliance of directives**: Weightage 25% of SR1
   - Full Marks: Documents/ Infrastructure updated within stipulated time
   - 50% Marks: Documents/ Infrastructure updated within extended time
   - 0% Marks: Documents/ Infrastructure not updated even within extended time

c) **Complaints from Zonal Railways about behavior in tenders etc**: Weightage 50% of SR1
   - 10% of marks to be deducted for every complaint received from zonal railways through minimum SAG officer

### 7.2 Determination of System Rating (SR2):

This is to be decided based on observation of Officers (Director and above) regarding Reassessment/ Quality audit/ Inspections and other general parameters which are not covered in rating system,

SR2 Values to be between 10-100

### 8.0 Classification of Vendors:

Based on vendor rating (VR) calculated above, each vendor will be classified into three classes as under:

<table>
<thead>
<tr>
<th>Rating Obtained</th>
<th>Class of Vendor</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>90 and above</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>75 to 90</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Below 75</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

### 9.0 Proposed use of Classification:

9.1 The vendors who maintain A Rating through out the period of approval, the validity will be extended for next period of approval (once) without need for field visit by officers. However, subsequent renewal will be as per extant procedure.

9.2 The vendors who are rated C class through out the period of approval, the validity will not be extended. After first year, they will be issued show cause notice for improvement. If no improvement in second year, show cause notice for Delisting will be issued. If no improvement in subsequent year, firm will be finally delisted from Vendor List.