RESEARCH DESIGNS & STANDARDS ORGANIZATION
Manaknagar, Lucknow – 226011

QO-D-8.1-10
Vendor sample type testing

1.0 Amendment History:

S. No.	Amendment Date	Version	Reasons for Amendment
1.	12.09.2018	1.0	First issue under ISO 9001:2015. Approved by DG/RDSO on NP-1 to NP-3 of MR/ISO9001/App/QMS/Doc/2018 on date. 07.09.2018. No change in content from previous document no.QO-D-7.1-10 Ver 4.1 of 9001:2008 QMS.
2.	19.06.2020	1.1	Special DG VD (Vendor Development) has joined RDSO and looking after vendor development work. All proposal for ISO procedure related to vendor development , where it was earlier required to get the approval of DG/RDSO, now to be put up to Spl. DG/VD who is now designated as final authority in vendor development matters. DG's note no. DG/Misc. dated 15.Jun.2020 and 16 June 2020 to ED /VDG RDSO/LKO
3.	15.07.2020	1.2	Changes made In Para 4.4 and 4.6 , based on recommendations of Standing committee duly approved by Spl. DG/VD on 10.07.2020 at Note#12 in E- Office file no. RDSO-MR0ISO(VD-M)/1/2020.
4.	19.08.2020	1.3	New para added in clause 4.5 after existing first para, based on recommendation of standing committee duly approved by Spl. DG/VD at Note # 51 on 18.08.2020 in the e-office file no.RDSO-QA/M0HQ(ISO)/2/2020.. Recommendations are placed at SN 402-405. on above e- office file .
5.	17.09.2020	1.4	Existing para 4.3 modified based on recommendation of standing committee duly approved by Spl. DG/VD at Note # 11 on 14.09.2020 in the e-office file no.RDSO-MR0ISO(VRQ)/1/2020-O/oMR/ISO/RDSO-Part(2) . Recommendations are placed at SN 17 on above e- office file.

S. No.	Amendment Date	Version	Reasons for Amendment
6.	04.12.2020	1.5	Existing para 4.3, 4.4 & 4.5 modified based on recommendation of standing committee duly approved by Spl. DG/VD at Note # 28 on 03.12.2020 in the e-office file no.RDSO-MR0ISO (VD-M)/1/2020-O/o MR/ISO/RDSO-Part (1) . Recommendations are placed at SN 37-40 in above e- office file.
7.	18.01.2021	1.6	Modification in Para 4.5.3 and new paras 4.5.3.1 , 4.5.3.1.1 & 4.5.3.2 added after para 4.5.3, based on recommendation of standing committee duly approved by Spl. DG/VD at Note # 27 on 12.01.2021 in the e-office file no.RDSO-MR0ISO (VDST)/1/2020-O/o MR/ISO/RDSO-Part (1) . Recommendations are placed at SN 53-58 in above e- office file.
8.	30.12.2021	2.0	New sub para 4.3.5 ,4.3.5.1, 4.3.5.1.1 & 4.3.5.2 added in para 4.3 and modifications in paras 4.4, 4.5.1 , 4.5.2 & para , 4.6 based on recommendations of Standing committee duly approved by Spl DG/VD on 22.12.2021 in E Office file no. RDSO/35/2021-ED/QAM/RDSO/ HQ at NP-44. Recommendations placed at SN 120-126 in the above file.
9.	28.07.2022	2.1	Replaced word 'Dirtectorate Head, or Head of Directorate' with 'ED controlling the item (when final decision is taken at ED level)/ PED of Vertical (where final decision is taken at PED level)' and Responsible authority for 'Requirement of deviation from directive' under the sub head 'Responsibility and Authority' in existing ISO documents with "PED of the concerned Vertical". These changes are based on recommendation of Standing Committee and duly approved by Spl. DG/VD on date 19.07.2022 at Note#14 in e-office file no. RDSO-MR0ISO(VD-C)/1/2020-O/o ED/Res/RDSO-Part(2) (Comp. No 123324). Recommendations of Standing Committee is placed at Note#11 in the above e-office file Para 4.3 heading and 4.3.1 has been changed as per recommendation of Standing Committee duly approved by Spl. DG/VD on date 21.07.2022 at Note#38 in e-office file no. RDSO-QA/M0HQ(ISO)/2/2021-ED/QAM/RDSO/HQ (Comp. No 193080). Recommendations of Standing Committee is placed at SN 89-94 of this file.

S. No.	Amendment Date	Version	Reasons for Amendment
10.	09.05.2023	2.2	Para 4.5.1 (a)-i modified & para 4.5.1 (a)-iv deleted as per recommendations of Standing committee duly approved by Spl DG/VD on 26.04.2023 in E Office file no. RDSO/803/2022-ED/QAC/RDSO/ (File no. 109495) at Note#16. Recommendations placed at Note#10 in the above file.
11.	27.07.2023	2.3	Para 4.2 deleted, and modification in 4.5.1 (b)-i) done as per recommendations of Standing committee duly approved by Spl DG/VD on 25.07.2023 in E Office file no. RDSO-MR0ISO(VD-M)/1/2020-O/o MR/ISO/RDSO-Part(2) (File no. 82704) at Note#54. Recommendations placed at Note#53 in the above file.
12.	06.02.2024	2.4	Para 4.3.4 modified based on recommendations of Standing committee duly approved by Spl DG/VD on 02.02.2024 at Note#69 in E Office file no. RDSO-MR0ISO(VD-M)/1/2020-O/o MR/ISO/RDSO-Part(2) (File no. 82704). Recommendations placed at Note#65 in the above file.
13.	18.03.2025	2.5	"*ED controlling the item (when final decision is taken at ED level)/ PED of Vertical (where final decision is taken at PED level)"* & "*Concerned Vendor Approving Authority*" in whole document has been replaced with "Concerned Vendor Approving Authority i.e. Vertical head (which is normally the PED concerned, except in case when there is no PED posted/looking after, the senior most officer of the Directorate). The changes has been approved by Spl. DG/VD on 13.03.2025 (Placed at SN-314) in e-office file no. RDSO-MR0ISO(VD-M)/1/2020-O/o MR/ISO/RDSO-Part(2) (Computer no. 82704)
14.	23.07.2025	2.6	• Modified Para 5.0 as per recommendations of standing Committee duly approved by Spl. DG/VD at Note#3 in ED/Stores e office file No.300971. • "Vendor Approving Authority i.e. Vertical head (which is normally the PED concerned, except in case when there is no PED posted/looking after, the senior most officer of the Directorate) has been replaced by" Vendor Approving Authority" in whole document. Placed at Note #14 in ED stores e-file 303042. • Change in clause 8.0 (Requirement of deviation) approval placed at Note#9 of ED stores e-file 303042. All recommendations placed at SN 1-64 in e-office Master file no.306233.

S. No.	Amendment Date	Version	Reasons for Amendment
15.	22.08.2025	2.7	Modified Para 2.0, 4.3.3, 4.3.4, 4.3.5, 4.3.5.1, 4.3.5.1.1, 4.3.5.2, 4.5.3, 4.5.3.1, 4.5.3.2, & 5.0 (Spl. DG/VD approval at Note#71) and 4.4 & 4.5.2.3 (Spl. DG/VD approval at Note#76), as per recommendations of standing Committee in office file no. RDSO-MR0ISO(VD-M)/1/2020-O/oMR/ISO/RDSO-Part(3) No. 82786 (at SN 195 to 214). Recommendations and approvals of above file are placed at SN 175-191 & SN 204-207 in master file no. 306233 of document no. QO-D-8.1-10.

2.0 Purpose

This document contains directives for vendor approval/vendor registration (multi-sourcing) of items allotted to RDSO by Railway Board(Refer Railway Board letter No. 2021/RS(G)}/779/7 dtd. 18/01/2022 and letter no. 2021/RS(G)/779/4 dated 09.06.2022).

This document contains directives specific to type testing of samples/prototype. However, these directives will not be applicable in case of Picking and Testing of Samples from the lot already passed by the inspecting agency in the vendor premises or from consignee end/field.

A set of related documents create the full set of directives for vendor registration process at RDSO. These are listed under para 5.0.

3.0 Scope of Application

This directive is applicable to all units covered by the quality management system of RDSO without any exception.

4.0 Details

Type Testing of samples/prototype to be done during fresh registration and subsequently only on need basis as decided by Concerned Vendor Approving Authority based on major changes in specification or any other serious reason warranting fresh **type testing**.

4.1 Sample/prototype lot

At the time of fresh registration, the firm shall be asked to manufacture a sample/prototype lot as per the specification.

4.2 (Deleted)

4.3 Type Testing Procedure at RDSO

4.3.1 For testing of prototype / sample which can be completed within Five (5) hours, entire testing process to be digitally recorded (Video Record or data generated through testing rig/equipment / instrument/ machine). Digital recording of testing time exceeding five (5) hours will require a larger storage space (for full digital recording of entire testing process), therefore for such cases, digital recording of critical stages based on past experience/records where samples/ prototype were getting failed (critical stages to be decided by the respective controlling Concerned Vendor Approving Authority in consultation with the concerned testing directorate at RDSO), is to be done. Digital Recording is to be preserved for minimum one-year period, for any reference in future.

Firm shall be intimated date and approx. time for testing by the concerned nodal directorate. Firm's representative may witness sample/prototype testing if desired by firm and append his signature on test register/test document.

4.3.2 In all the cases of Destructive Testing of samples/prototype, procedure as detailed in para 4.3.1 above shall be followed.

4.3.3 In cases of NON-Destructive Testing, initially the testing is to be conducted as prescribed in the procedure by the official nominated by the Vendor Approving Authority, and in case the some of the initial results are not conforming to the stipulated requirements, a Confirmatory Testing is to be Cross checked / witnessed by the officer, at least one grade higher than the previous one from the concerned Testing Directorate. The Confirmatory Testing process is to be digitally recorded. Before intimating to the firm regarding failure of the sample/prototype after confirmatory testing, the Concerned Nodal Director shall ensure that, the stipulated process has been followed and digital recording as detailed above has been done.

4.3.4 Prototype testing to be dealt as per para 4.9 of ISO document No. QO-D-8.1-6. Afterwards, the case shall be closed and closure advice, along with the test results shall be communicated to the vendor along with its digital recording as detailed in para 4.3.2 and 4.3.3 by the concerned Director after the approval of the Concerned Vendor Approving Authority.

4.3.5 Following protocol will be observed in case of Testing of samples/prototype:

4.3.5.1 Item sample/prototype is to be tested in sequence of priority as follows: -

1. RDSO Lab.
2. Govt. Lab/ NABL accredited Lab.
3. An accredited Lab by a Govt. controlled accreditation agency which meets the criteria mentioned in para 4.3.5.1.1 of this document because of following reasons:
   (i) Due to non-availability of facilities in RDSO.
   (ii) Because of Capacity constraint in Govt. Lab or in NABL accredited lab.
4. In case sample/prototype testing cannot be done in above labs in the said sequence, test facilities created in firm's premises to comply Specification/STR of an item may be used after the approval by concerned Vendor Approving Authority.

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4.3.5.1.1 Criterion for accreditation agencies as mentioned in para 4.3.5.1 above shall be as under:

1. Should be full member and signatory to Mutual Recognition Agreement (MRA) of ILAC (International Laboratory Accreditation Cooperation) & APLAC (Asia Pacific Laboratory Accreditation Cooperation).
2. Should have established accreditation system in accordance with ISO/ IEC (International Electro technical Commission) 17011:2004 or latest version as applicable.
3. Carry out assessment and accreditation of LABS in accordance with ISO/IEC 17025.
4. Should be Govt. Controlled.

4.3.5.2 **(Deleted).**

Note: Definition of Government Labs

1. All Govt. Labs and testing houses fully owned by Govt. and registered as Lab and carrying out Tests for Private Agencies.
2. All Govt. PSU's Labs and testing houses, carrying out Tests for Private Agencies.
3. All Labs of Govt. Research Organizations and Govt. Autonomous Bodies, carrying out Tests for Private Agencies.

4.4 Request for Retesting:

If the vendor desires for re-testing of same sample/prototype or retesting of improvised sample/prototype, he/she may do so by submitting the details of technical explanation or corrective action taken to improve the product, as per the case, especially for the parameters which were found non-conforming during earlier testing. Such request of firm for retesting will be considered with the approval of Concerned Vendor Approving Authority.

Any concern including the laid down procedures of testing raised by the firm shall be submitted in writing to the Concerned Directorate, which will be examined by the Concerned Vendor Approving Authority in consultation with the Testing Directorate (if applicable) and shall be taken care of during retesting. The decision of Concerned Vendor Approving Authority in this regard shall be final.

Note: In case, Concerned Vendor Approving Authority decides to turn down request of retesting, such reasons may be recorded while conveying decision in the letter to firm and also to be written in same letter that if firm is not convinced with such decision , appeal can be preferred to Spl. DG (VD) in 60 days.

4.5 Retesting of the Sample/prototype on the request of the firm.

4.5.1 For items requiring testing in RDSO, following procedure shall be followed:

a) Same Sample/prototype:

i) In case of request for re-testing of same sample/prototype: The firm will get itself re-registered and request to RDSO for retesting of same sample/ prototype giving details of technical explanation within one month period from the date of advice of failure. In case of failure in destructive test the sealed sample/ prototype is already available in RDSO which will be used for retesting. The above provision is to be advised in the failure advice to the firm.

ii) On receiving the valid request (as defined above) for retesting, firm shall be intimated date and approx. time for joint re-testing within one-month period, by the concerned nodal directorate duly giving him notice in advance to join the retesting process.

iii) Retesting of the sample/prototype shall be done for applicable parameters (parameter in which the sample/prototype failed earlier and subsequent remaining tests) as per the specification and laid down procedure, to be witnessed and jointly signed by Concerned Testing Directorate, Nodal Directorate and the Firm's representative. Digital recording of above retesting will be done by RDSO and preserved for one year by the concerned Nodal Directorate.

b) Improvised Sample/prototype:

i) In this case, firm should submit internal test result along with his application and suggestion, if any, for improving the laid down procedure of testing. Having been satisfied with the steps taken by the vendor, the vendor shall be asked to offer fresh samples/prototype for re-testing and witness its testing. The firm should be in readiness to offer samples/prototype prior to the visit of RDSO officials to firm's premises for picking up and sealing the sample/prototype for retesting.

ii) Testing of sample/prototype shall be done for all the parameters again as per the specification and laid down procedure. Firm representative may witness sample/prototype testing if desired by firm and append his signature on test register/test document. The case will be finalized accordingly.

iii) Digital recording of the critical stages for the process will be done by RDSO and preserved for one year by the concerned Nodal Directorate.

4.5.2 **For items requiring testing at firm's premises in presence of RDSO's representative, following additional procedure shall be followed:**

4.5.2.1. In all the cases of retesting of the samples, the process of sample/prototype testing is to be Digitally Recorded to be arranged by the firm for the critical parameters and this recording is to be submitted to the Concerned Vendor Approving Authority, along with the test results, for dealing the case further.

4.5.2.2 The Nodal Directorate shall ensure that, the stipulated process has been followed by seeing the Video Recording for the all-critical parameters of the sample/prototype as per prescribed testing procedure and take the decision accordingly. This video is to be preserved by the Directorate for at least one-year period for any reference in the future.

4.5.2.3 In case it is decided that sample/prototype is failed and no further testing is required, then the case shall be closed and closure advice, along with the test results shall be communicated to the vendor along with its Digital Recording, by the concerned Director after the approval of Concerned Vendor Approving Authority.

4.5.3 Following protocol will be observed in case of retesting of samples/prototype:

4.5.3.1 Item sample/prototype is to be tested in sequence of priority as follows: -

1. RDSO Lab.
2. Govt. Lab/ NABL accredited Lab.
3. An accredited Lab by a Govt. controlled accreditation agency which meets the criteria mentioned in para 4.5.3.1.1 of QO-D-8.1-10 because of following reasons:
   (i) Due to non-availability of facilities in RDSO.
   (ii) Because of capacity constraint in Govt. Lab/ NABL accredited Lab.
4. In case sample/prototype testing cannot be done in above labs in the said sequence, test facilities created in firm's premises to comply Specification/STR of an item may be used after the approval by concerned Vendor Approving Authority.

4.5.3.1.1 **Criterion for accreditation agencies as mentioned in para 4.5.3.1 above shall be as under:**

1. Should be full member and signatory to Mutual Recognition Agreement (MRA) of ILAC & APLAC.
2. Should have established accreditation system in accordance with ISO/IEC 17011:2004 or latest version as applicable.
3. Carry out assessment and accreditation of LABS in accordance with ISO/IEC 17025.
4. Should be Govt. Controlled.

4.5.3.2 **(Deleted).**

Note: Definition of Government Labs

1. All Govt. Labs and testing houses fully owned by Govt. and registered as Lab and carrying out Tests for Private Agencies
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3. All Labs of Govt. Research Organizations and Govt. Autonomous Bodies, carrying out Tests for Private Agencies

4.6 Failure of sample/prototype in Retest

In fresh registration cases, if there is no improvement & the samples/prototype are found non-conforming, the case to be dealt as per Para 4.9 of QOD- 8.1-6.

In case of failure of the test of existing vendor, appropriate action for serving a show cause notice to firm to improve performance shall be initiated and if firm fails to improve its performance/quality assurance programme within 120 days, action for down gradation / de- listing shall be initiated as required. However, during this period, inspection of the items manufactured by the firm shall be suspended.

5.0 Referenced Documents

The list of related documents for multi-sourcing of items / equipment are given below.

Ref. S. No.	Document Number	Document Name
1.	QO-D-8.1-5	Application for registration of vendor
2.	QO-D-8.1-6	Vendor application processing
3.	QO-D-8.1-7	Relaxation of Vendor registration requirements
4.	QO-D-8.1-8	Vendor registration EOI
5.	QO-D-8.1-10	Vendor sample/prototype type testing
6.	QO-D-8.1-11	Vendor changes in approved status
7.	QO-D-8.1-12	Vendor changes in vendor entity
8.	QO-D-8.1-13	Quality Audit of Approved Vendor
9.	QO-D-8.1-14	Vendor registration schedule of charges
10.	QO-G-7.5-1	Definitions and Abbreviations

6.0 Referenced Documents of External Origin

None

7.0 Associated Records

As required by the directorate documentation

8.0 Responsibility and Authority

Activity	Responsible	Approver	Supporting	Consulted	Informed
Creation, maintenance of this document	MR/ISO Cell	Spl. DG/VD	Staff of ISO Cell		All directorates through intranet
Compliance of directives contained in this document.	Director In-charge of Directorate	Concerned Vendor Approving Authority	Directorate Staff		
Requirement of deviation from directive.	Executive Director of concerned directorate	Vendor Approving Authority	Director In-charge	MR/ISO Cell	Spl. DG/VD & MR/ISO for discussion during MRM in agenda point-4

The Vertical Head shall approve deviations, if necessary, based on a fair and transparent procedure to be defined by the Directorates in their Directorate level documents/ procedures. Record of deviations permitted by the verticals shall be maintained by them.

9.0 Abbreviations

None