

## भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)

### **National Highways Authority of India**

(Ministry of Road Transport and Highways, Government of India) जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली - 110 075 ● G-5 & 6, Sector-10, Dwarka, New Delhi-110075 दूरभाष/Phone : 91-11-25074100 / 25074200



NHAI/ Policy Guidelines/ Consultancy/ 2025
Policy Circular No.10.2.43/ 2025 dated 20<sup>th</sup> February, 2025
[Decision taken on E-Office File No. NHAI/TIC/PQ/2012-13 (Comp. No. 2252)]

Sub: SOP for Checks & Control on Quality of Factory Manufactured material/Products being used in NHAI Projects - reg.

There is importance of appropriate Quality Control of Manufactured Material/Products used in Highway Construction. Being Factory made Material, Quality of production is primarily controlled at Factory Site. Therefore, proper selection of source and test checking of 'Lots' as per IRC Guidelines/QAP is necessary and consistently need to be ensured at Field Site. Earlier, the practice of 'One-time source approval' by NHAI HQ was exercised since 2021 and list was updated from time to time. The last updated list was circulated vide OM No. NHAI/TIC/PQ/2012-13/394 dated 12.12.2023.

- 2. Noticing various pros and cons of the existing system of 'One-Time Source Approval' and to further improvise the System of Check & Control on Quality of Manufactured Material/Products, a Committee was constituted to examine the matter as per the direction of EC.
- 3. Based on the recommendation of the Committee and approval of the Competent Authority, the following has been decided:
- **3.1** Abolish the Current System of 'One-Time Source Approval' by NHAI HQ- The 'One-Time Source Approval list' is hereby discontinued.
- 3.2 A Multilevel Checks and Control Mechanism as per following is established:

### 3.2.1 General:

- (i) In place of existing system of 'One-Time Source Approval' by NHAI HQ, a list of preferred Vendors/Firms for supplying Reinforcement Steel, Cement and Emulsion is attached as Annexure-I. These firms may be given preference by AE/IE while considering source approval at Site and Factory visit requirement for these Firms may be dispensed with. In addition to above list, any other Manufacturer/Supplier meeting the prescribed standards can be considered for source approval as per laid down Guidelines under IRC: SP-112 for Manufactured Material/Product.
- (ii) A Standard Checklist for Factory Inspection is attached as Annexure-II (Cement, Steel & Emulsion). While considering source approval for Steel and Cement for Firms not included in the list at Annexure-I, the AE/IE shall give preference to Producers having their integrated Plant System at one place. For Steel Manufacturers, the plants having LRF (Ladle Refining Furnace) should be given preference.
- (iii) Details of Factory-Made Material/Product being used at NHAI project is a crucial data for any decision making, therefore, a separate Datalake module for updation of details of Factory Manufactured Material/Product being used at Project Site shall be created by SRD&Q Division. All PIUs (Till establishment

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of RQOs) shall update the details of Material/Products being used in Project on monthly basis which will comprise of name of Manufacturer, Make Address, details of source approval including Name & Location of the Factory, date of Factory Inspection, Signed Standard checklist as per Annexure-II, Quantity of Material supplied, etc.

# 3.2.2 Establishment of Independent Regional Quality Offices under SRD&Q Division:

(i) It is proposed to establish 5 number of Independent Regional Quality Offices under SRD&Q Division which will be headed by Regional Quality Officer (in the rank of GM) who will be the responsible to Co-ordinate, Plan and keep all Quality Control related matter of the defined Region/Zone. The Regional Quality Officer will be supported by Two (2) Officers of rank of Manager/Dy. Manager. This Office will directly report to SRD&Q Division. The Tentative Zones are as under:

Zone Name	Office Location	State Jurisdiction		
North	Delhi	Delhi, Haryana, Punjab, J&K, Himachal Pradesh, Uttarakhand		
South	Bengaluru	Karnataka, Tamilnadu, Kerala, AP, Telangana, Goa		
East	Bhubaneswar	Odisha, West Bengal, Chhattisgarh, Jharkhand, Assam & other NE states		
West	Ahmedabad	Gujarat, Rajasthan, Maharashtra		
Central	Lucknow	Uttar Pradesh, Bihar, MP, Sikkim		

- (ii) The broad Roles & Responsibility of Regional Quality Office shall be as under:
  - (a) Carrying out detail Quality Inspection for each Project at least twice during construction period: - The first inspection should be conducted within Six Months from the appointed date specifically to review the Quality Management System of the Concessionaire/Contractor including an evaluation of the Quality Assurance Plan (QAP). RQOs have to oversee Quality Control Processes, ensuring that adequate resources are deployed for testing and monitoring.
  - (b) Finalisation of laboratories at Regional Level on yearly basis for 3<sup>rd</sup> Party Testing of Material/Product.
  - (c) Collection of random samples of Factory Manufactured Material/Product and testing in 3<sup>rd</sup> Party Lab.

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- (d) Witnessing test of specialised Factory Manufactured Products like Bearing, Expansion Joint, etc. on behalf of Authority.
- (e) Source approval of Factory Manufactured Materials/Products:
  - i. The Concessionaire/Contractor shall submit a proposal for source approval of Factory-Manufactured Materials/Products to the AE/IE. Upon review, the AE/IE will recommend the proposal to the relevant PIU, which will then forward the proposal to particular RQO in which the Factory is present. The Factory Inspection shall be conducted by a team comprising representatives from AE/IE and the RQO. Following the inspection, the RQO will grant source approval.
  - ii. RQO shall update the details of source approval granted on Datalake portal as specified in Para-3.2.1 (iii) above.
  - iii. If any RQO has inspected a Factory and approved the source in Last Six (6) Months and has updated the approval details on Datalake Portal, then there is no need for Factory Inspection again and RQO may rely on previous Factory Inspection while granting source approval. This will avoid repeated Factory Inspection and save time.
- (f) Assist and advise PIUs/ROs on any critical Quality-related issues in any Project.
- (g) Recommendation to SRD&Q Division for formulation of Policy Guideline related to Quality Control in Road & Bridge work.
- (h) Coordination for Internship of B.Tech/M.Tech Civil Engineering Students for Industrial/Field exposure in accordance with MoRT&H Circular.
- (iii) Any other Roles & Responsibilities as deemed necessary shall be assigned to Regional Quality Office (RQO) in future.
- (iv) The above Roles & Responsibilities of Regional Quality Offices are Independent of existing Roles & Responsibilities of AE/IE/PIU/RO as defined in Contract Agreement and extant Policy Circulars. This will not absolve the Roles and Responsibilities of Concessionaire/Contractor/AE/IE/PIU in any manner and AE/IE/PIU/RO shall continue to carry out its current Roles and Responsibilities without any change.
- **3.2.3** Till the establishment and functioning of above Proposed System the following Responsibility are assigned to RO, PIU and NHAI HQ:
  - (a) A Regional Level Laboratory having capacity to conduct most of the tests specified by BIS (preferably Govt. owned Lab) to be finalised by respective RO on yearly basis for 3<sup>rd</sup> Party testing of samples collected by RO/PIU considering following:
    - i. It shall have NABL accreditation for relevant testing Equipment/Facility.
    - ii. It shall have Facilities of testing of Materials as per the BIS standard, IRC or MoRT&H.
    - iii. It shall have Facilities for testing of all grades of a particular Material.

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- (b) ROs/PIUs shall carry out random testing of Factory produced Material/Product being used at Project for each Material/Product at least twice a year through 3<sup>rd</sup> Party Lab as mentioned above. The results of tests should be updated on Datalake as mentioned in Para-3.2.1 (iii) above. Further, in case of failure of sample separate information is to be sent to SRD&Q Division apart from uploading on Datalake. The procedure for Sampling, Testing and acceptance criteria has to be followed as per relevant BIS/IRC/MoRT&H specifications.
- (c) PIUs shall ensure that Lab Equipment being procured & used at Contractor's Project Lab are from BIS certified Equipment Manufacturers (exception for non-BIS certified Equipment) and Laboratories setup by Contractor at Site should be well equipped as per IRC:SP-112. Time to time Calibrations of inhouse Lab Equipment of Contractor/Concessionaire at Site as per frequency described in IRC:SP-112 or as recommended by Manufacturer (whichever is earlier) are also to be done from approved bodies along with its Record/Calibration Certificate.
- (d) The RO shall nominate one Officer (at least of Manager (T) Level) in each PIU as Manager (Quality) who will be Nodal for overlooking Quality related issues as specified under Para- 3.2.3 (a), (b) & (c) for the Projects under the PIU.
- (e) In addition to above, SRD&Q Division may nominate Officials from NHAI HQ or engage some Expert Agency with approval of Member (SRD&Q) to collect the samples from Site. The Nominated Official/Agency will collect the sample from Site within 5 days of receiving direction from NHAI HQ as a Surprise Visit and testing will be done in approved Lab. In case, sample found not meeting satisfactory criteria as mentioned in BIS/MoRTH, then appropriate action will be taken with the approval of Chairman, NHAI.
- **3.2.4** Till the establishment and functioning of RQO, the AE/IE shall continue to grant the source approval in accordance with the existing Norms and Guidelines set forth in **Para-3.2.1** above.

4. This issues with the approval of Competent Authority.

Encl.: As stated above

(CS. Sanjay Kumar Patel) General Manager (Coord.)

To:

All Officers of NHAI HQ/ ROs/ PIUs/ CMUs/ Site Offices

#### Copy to:

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- 2. Library for hosting the circular on library site.
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## Annexure-I

Material	Name of Vendors
Reinforcement steel	Steel Authority of India (SAIL)
	Jindal Steel
	Tata Steel
	RINL
	JSW Steel Ltd.
	Indian Iron & Steel Company (IISCO)
Cement	Ultratech
	Orient Cement
	J K Cement
	ACC
	Ambuja Cement
	Wonder Cement
	Dalmia Cement
	Shree Cement
Emulsion	Karnatak Chemical Corporation
	STP Ltd.
	Hincol
	IOCL



Name Make Raw Plant Integrated*/ Production Additional Testing Lab BIS/ ISO Quality Quality Of and its Material Type Separate Capacity (in Purifying Facilities Accreditation Certification Management Audit Strange With Calibration Furnace Process Sourcing Report Calibration (LRF, etc.) Process Sourcing Report Calibration Cartification Management Audit System Report Calibration Cartification Management Audit System Report Calibration Cartification Certification Cartification Certification Cartification

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approval in respect of Cement	Remarks	
	Third Party Test	
	Quality Audit Report	
	Quality Management System	
	BIS/ISO Certification	
te tor source	Lab	
at Plant Si	VRM Facilities	
Checklist for verification of Documents and Facilities at Plant Site for source approval in respect of Cement	XRF Facilities	
	Cross Belt Analysis Unit (CBA)	t one site
	Integrated*/ Separate Plant Sites#.	*Integrated means- Raw Stone Metal to final Cement #Separated means- not entire process and Cement Production at one VRM- Vertical Raw Mill for efficient particles size distribution.
	Production Capacity (In Million Tonne)	*Integrated means- Raw Stone Metal to final Cement #Separated means- not entire process and Cement Production VRM- Vertical Raw Mill for efficient particles size distribution.
	Plant	ine Meta re proce
Check	Raw Material Sourcing	s- Raw Stc s- not entil
	Make and its Address	ated mean
	Name of Brand	*Integr #Separa

Wh.

Checklist for verification of Documents and Facilities at Plant Site for source approval in respect of Emulsion	Remarks		
	Third Party Test		
	Quality Audit Report		
	Quality Quality Third Management Audit Party System Report Test		
	BIS/ISO Certification		
	Lab Accreditation		
	Lab Facility		
	Storage Capacity		
	Production Capacity (In Million Tonne)		
	Plant Type (Automatic/ Non-Automatic)	,	
	Raw Material Sourcing		
	Name Make and of its Brand Address		
	Name of Brand		

