

No. 64/9/2001-2V/g.II

From

The Chief Secretary to Government Haryana.

To

1. All Administrative Secretaries to Government Haryana.
2. All the Heads of Departments.
3. Commissioners, Ambala, Hisar, Gurgaon & Rohtak Divisions.
4. The Registrar, Punjab & Haryana High Court, Chandigarh.
5. All the Deputy Commissioners in the State of Haryana.
6. The Managing Directors/Chief Administrators of all the Boards/Corporations in Haryana State.
7. The Registrars of all the Universities in the State of Haryana.

Dated Chandigarh, the 12th May, 2015.

Subject:- Procedure to be adopted for Special checking of the civil works of Engineering Departments by the State Vigilance Bureau Haryana/ Vigilance Wings of various Departments/Boards/Corporations of the Government of Haryana.

Sir,

I am directed to refer to Haryana Govt. letter No. 46/41/91-4Vig.II, dated 16/22.7.2009 on the subject noted above and to say that after reviewing the inputs received from the various departments and as per decision taken in the meeting on 9.4.2015, it has been decided to follow the following guidelines for sampling, re-sampling and re-testing of Civil Engineering structures by the State Vigilance Bureau and Vigilance Wings of the various Departments/ Boards/ Corporations of the Government of Haryana while checking of various civil works :-

I. General

- (i) As per instructions issued by Chief Secretary to Government, Haryana, vide No. 46/41/91-4Vig.II dated 16/22.7.2009, various Engineering departments were directed to send list of ongoing civil works each costing Rs. 15 Lacs or above for special checking to State Vigilance Bureau, Haryana twice a year.

All departments will, henceforth, send consolidated list of ongoing works each costing more than Rs. 1 Crore instead of Rs. 15 Lacs after every six months i.e. from January to June and July to December every year. The list should reach the Director General, State Vigilance Bureau, Haryana for the period ending 30th June and 31st December by 15th July and 15th January respectively by e-mail (E-mail ID : xensvb1-hry@nic.in) as well as by post. Government instructions issued by Chief Secretary to Government Haryana vide letter No. 46/41/91-4Vig.II, dated 16/22.7.2009 be treated as modified to the extent indicated above.

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- (ii) Director General, State Vigilance Bureau, Haryana will select works for special checking from consolidated list of ongoing works sent by various departments and on complaints received by State Vigilance Bureau. The State Vigilance Bureau, Haryana will also technically check the works on the complaints sent by any other competent authority/A.D.

II. Frequency of samples for various items to be taken for technical audit.

A. **For Road Works:-**

The quality audit shall always start with a careful visual inspection to assess the quality of road work. The number of samples for road work is to be taken/ decided as described below:-

- (i) **For the road length upto 5 K.M:-** At least three number samples of each major item of road work should be taken at three different locations depending upon the quantum of work and as per site condition.
- (ii) **For the road length more than 5 K.M:-** For every additional 5 KM or part thereof of road length, one sample in addition to three samples should be taken for each major item of road work depending upon the quantum of work and as per site condition.

B. **For Building Works & RCC structures:-**

The quality audit should start with careful visual inspection of site and sample should be taken in such a way that no damage is caused to load bearing structural members.

- (i) **Building works costing more than Rs.1.00 Crore:-** In case of works costing more than Rs. 1.00 Crore at least three number samples should be taken for each major item such as Cement Concrete, Bricks, Cement Mortar, Cement Plaster etc. depending upon the quantum of work and as per site condition.
- (ii) **Building works costing upto Rs.1.00 Crore: -** In case of works costing upto Rs.1.00 Crore minimum one number sample should be taken for each major item of work such as Cement Concrete, Bricks, Cement Mortar, Cement Plaster etc. depending upon the quantum of work and as per site condition.
- (iii) **RCC Structures: -** In case of major RCC Structures non-destructive methods of testing such as Rebound Hammer Test and Ultrasonic Pulse Velocity Test, may be adopted. At least five number tests should be carried out for non-destructive methods of testing of RCC Structures.

C. For Canal Lining:-

- (i) **Area upto 2500 Sqm of lining:** - Minimum three number samples of each major item should be taken at three different locations depending upon the quantum of work and as per site condition.
- (ii) **Area more than 2500 Sqm of lining:-** For every additional 5000 sqm of lining or part thereof, one sample, in addition to three samples, should be taken for each major item of lining work depending upon the quantum of work and as per site condition. As far as possible, samples should be taken uniformly considering the entire length.
- (iii) **For Mass Concrete of Irrigation works:** - In case of Irrigation Structure like concrete foundation, floors of various irrigation structures. For chemical analysis, at least three number samples with core cutting machine should be taken depending upon the quantum of work and as per site condition.

III. Methodology to be adopted while taking samples for chemical analysis in case of executed civil works such as RCC structures, brick masonry and suggestions for taking samples and location of samples.

For post technical audit, methods for quality audit of executed masonry work are not well established for testing. The location of sample is to be decided by the officer conducting technical audit after careful visual physical inspection so as to cause minimum damage to the structure as per site condition in each case. Samples in building works for chemical analysis of cement in cement mortar/cement plaster/cement concrete/brick work should be taken with the help of suitable equipments. For all types of Civil Works two sets of sample of each item i.e. bricks/mortar/cement plaster/cement concrete, etc. should be extracted from various points to avoid much damage to the structure. One of these sets is sent to the laboratory for testing and the other set be kept in the custody of Vigilance Unit for future use and reference. There is no need to take third set of samples.

The non-destructive methods such as Rebound Hammer Test and Ultrasonic Pulse Velocity Test may be carried out for testing RCC structures so as to cause minimum damage to the structure. However, in case of building work/RCC frame work, the destructive methods for testing RCC structure such as core cutting should be rarely adopted for post construction technical audit.

IV.

Criteria to be adopted for various re-assessment, re-sampling and re-testing for technical audit of executed civil works.

For post technical audit re-sampling should not be done as sample set in duplicate is taken for quality audit. While one set is sent to the laboratory for testing, the second set is kept in the custody of Vigilance Unit.

Re-assessment and re-testing shall be done in exceptional cases on the request of affected party, when the variation in the results is more than 50% of the desired norms, with the approval of competent authority on the condition that the cost of re-testing of sample shall be borne by the affected party. In such cases of re-assessment and re-testing, the result received after re-testing shall be considered for technical audit.

V.

Procedure to be adopted for sealing of samples, for testing during quality audit and the requirement of presence of officials of the department and contractual agency during quality audit.

For post technical audit, samples should be taken in the presence of officer conducting technical audit, officer/official of Vigilance Unit, officers of concerned department presently posted and concerned agency and sealed in the presence of all these officers/officials. The concerned staff who have executed the work may also be informed in advance so that they are also present, if possible.

VI.

Variation in quantity/quality, to be allowed in case of executed civil works due to compaction, abrasion, wear and tear, weather conditions, flow of traffic etc. with the passage of time.

Variation in quantity/quality should be followed as per various Ministry of Shipping, Road Transport & Highways (MORTH) specifications, Indian Standard (IS) Codes and PWD specifications related to each item of work. Variation in test results should be allowed keeping in view site conditions of the work. As in the case of gradation of aggregates, 10% variation in grading in sieve analysis may be allowed for intermediate sieves. No relaxation in gradation may be allowed with respect to the specified sieves for upper and lower set of sieves.

VII.

Suggested period after completion of work after which quality audit may not be made

As the life span decreases and behavior of material changes with the passage of time, for post technical audit, it is recommended that in case of road works and hydraulic structures, sampling may not be done after five

years and in case of building works and RCC structures sampling may not be done after ten years.

VIII. Empanelment of Government Institutes in addition to Forensic Science Laboratory, Haryana, for testing of materials for quick disposal of enquiries/cases.

At present samples for testing of material are being sent to Forensic Science Laboratory, Madhuban, Karnal, Haryana. However, equipments required for all types of tests for technical audit are not available in Forensic Science Laboratory, Haryana. Hence, in case of post technical audit, for early disposal of Special Checking and enquiry cases, empanelment of some other Government Institutes is necessary.

It is now decided that National Institute of Technology, Kurukshetra, National Institute of Technical Teachers Training & Research, Chandigarh, Punjab Engineering College, Chandigarh, IIT Delhi, YMCA Faridabad, Delhi College of Engineering, NSIT Delhi should also be empanelled for conducting tests.

In this regard it was decided that equipments not available for carrying out test for technical audit including non-destructive methods of testing such as Rebound Hammer Test, Ultrasonic Pulse Velocity Test should be procured by Forensic Science Laboratory, Haryana within a reasonable time and installed for use by state agencies and departments.

2. The above guidelines/ instructions shall be effective from 1.4.2015. Please ensure strict compliance of these instructions.

[Signature]
12/5/15

Deputy Secretary Vigilance,
for Chief Secretary to Government Haryana.