



No. W/68/Vig/Confid/Part-II/W-3(G)

Sr. DEN/Co-ordination,
North Eastern Railway,
IZN, LJM & BSB.
Dy. CE/GA/Gorakhpur.

System Improvement

Sub: कंक्रीट कार्य में प्रयोग किये जा रहे कोर्स एग्रीगेट एवं फाइन एग्रीगेट की ग्रेडिंग के संबंध में।

Ref: Dy.CVO/Engg letter No PC/V-3/2018/09/01746/439 Dated 15.05.2019.

- 1.0 In a vigilance check of a concreting work in a Division, it was observed that Gradation of Coarse and Fine Aggregates has not been ensured as per standard provisions. The supply of Coarse and Fine Aggregates were taken on different dates, but Gradation of Aggregates was tested initially only, in which it was found to be as per standard provisions. During the course of vigilance check, sample of Coarse Aggregates was tested and the sample was not found in accordance with standard provisions, even though the material was passed by respective officer in-charge.
- 2.0 This case brings out the facts that stipulations of Specifications were not adhered. The relevant provision of the relevant IS codes and other instructions are indicated below:
 - 2.1 The Grading of **Fine and Coarse Aggregates** shall be checked, from the each Lot of material. For this, samples shall be selected and examined from each lot separately (*para 4.1 of IS 2430*).
Lot shall be defined as "*The quantity of aggregates of the same class, nominal size, source and offered for inspection at one time. The lot may consist of the whole or a part of the quantity ordered for.*" (*para 2.5 of IS 2430*)
 - 2.2 Weight of samples of the Aggregates to be taken for Sieve Analysis as well as Test procedure, has been given in detail in *para 2.3 to 2.5 of IS 2386 (Part-1)*, which should be strictly adhered to.
 - 2.3 **Results of Sieve Analysis:** Percentage passing on respective sieve of Fine and Coarse Aggregate shall be calculated and reported as *cumulative percentage by weight of the total sample passing each of the sieves, to the nearest whole number* (*para 2.6 of IS 2386 Part I*). Gradation of Fine and Coarse Aggregate should be within the limits as described in *IS 383-2016 (refer Table-7 & 9)*.
 - 2.4 Coarse and Fine Aggregates supplied in a Lot, whose Gradation are found in accordance with *IS 383-2016 (refer Table-7 & 9)*, shall only be used for concreting work.

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2.5 In case the Gradation of Aggregates is not found within the prescribed limits, material supplied in the same lot shall be rejected and respective stacks shall be earmarked for removal from site.

2.6 Any further supply of **Fine and Coarse Aggregates** shall be taken at separate location with respect to earlier passed stacks of Aggregates, so that fresh supply of Aggregates may not get mixed with already passed quantity of the Aggregates.

In view of the above, it is directed that Gradation of Coarse and Fine Aggregates shall be ensured in accordance with IS-383, throughout the concreting process in a work and strictly following the provisions indicated in para 2.0 above.

The above instructions should be brought to the knowledge of each Sr. DEN/DEN/SSE/Works and assurance to be obtained.

(S.K. Mishra)
Chief Planning & Design Engg
For GM/Engg.

Copy to :-

1. CAO/Con/NER for kind information please.
2. CE/Con/North, East, HQ & West NER/GKP for information & necessary action
- ✓ 3. Dy.CVO/Engg./NER/GKP for information, in reference to his letter under reference above.



For GM/Engg.