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Gill Park, Gill Road, Ludhiana - 141006 Lat 30° 51' 29" N Lon 75° 51' 39"E

Ph.: 0161-2491193, 5064509 Website : http://tcc.gndec.ac.in E-mail : tcc@gndec.ac.in

GNDEC/TCC/R/ 4866 Dated: 10.09.2015

To

Nahar Spining Mills Limited
375, Industrial Area – A
Ludhiana
Punjab

Sub: Vibration of Nahar Tower

Sir,

In response to you request dated 12/08/2015 for "Solution to Vibration of Building", find attached our report for your kind consideration.

With regards,

Dean Testing & Consultancy

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No. GNDEC/TCC/R/4867 Dated: 10.09.2015

Report

Building	Nahar Tower
Client	Nahar Spinning Mills Limited
Address	375, Industrial Area – A, Ludhiana, Punjab
Issue	Vibrations
Observations	The vibration study of Nahar Tower was conducted on Sept 2, 2015 in the presence of Er Jagjit Singh Gill, Cheif Engineer of Nahar Spinning Mills Ludhiana. The vibration in the building (due to operation of hammer of nearby Industries) was recorded on various parts of the building and these were found to have an average of peak acceleration of 0.72 m/s^2 with a SD of 0.051 m/s^2 , with a maximum peak value of 0.82 m/s^2.
Inference	The above mentioned average peak acceleration was 7.33% of g (acceleration due to gravity) and the maximum peak acceleration was observed as 8.36% of g. The parameter is not of a magnitude to cause any distress / fatigue in the structural member of any engineered building*a. The effect of vibration is equivalent to that of "Traffic (road, rail) movement" and "Machinery operating inside building" *b.
Remedy	It is recommended to provide a floor rubber mat in the office building to reduce the vibration / acceleration being felt by the occupants.
*Source	[a] Construction Technology Update No. 22, NRC-CNRC, Published by Institute for Research in Construction. [b] ISO 4866:1990 Evaluation and measurement for vibration in buildings: Part 1.

(Co-Ordinator)

Dean Testing & Consultancy