



INDIAN SOCIETY
OF
STRUCTURAL ENGINEERS



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To,
Umang Jaggi
Member Secretary of the Sections Committee
Bureau of Indian Standard
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG,
NEW DELHI 110002

Kind Attn : Chairman SSD II ssd2@bis.gov.in

**Sub : RESPONSE TO REQUIREMENTS FOR STRUCTURAL DESIGN AND PROOF
CHECKING CONSULTANCY SERVICES FOR STRUCTURES**
Doc. No.: SSD II/06(19914) July 2022

Dear Sirs,

Indian Society of Structural Engineers (ISSE) is a premier association of Professional Structural Engineers with its Head Quarters at Mumbai looking after the development of the profession to the benefits of Indian society with the focus on construction industry in particular. We assist Government, Self Government, Municipal Corporations and other Corporate bodies in framing their policies for sound and stable structures in their built assets.

We publish a technical journal for free circulation amongst members and complementary to heads of industries. We have published an award winning book on "Design of reinforced concrete structures for earthquake resistance" for the guidance of Professional structural engineers. This deals with practical design aspects as per relevant codes of practice. We have more than 2200+ structural engineers as our members.

We would like to express our views on behalf of our practicing structural engineers.

We would like to address some basic queries regarding this document:

a) What is the Objective of the document?

- It appears that the operating part of the Document is Table 1 which defines the Minimum Qualification and Experience of "Team Leader" of PDC and PC. The only person of concern to the Building Authority having Jurisdiction (BAHJ) is the engineer taking on the liability and responsibility of the structural design and hence minimum qualification and experience of the Structural Engineer on Record (SER) is pertinent, not that of the Team Leader. (The Team Leader and SER are often different).

- Countries like Uganda which are not as developed as India also have a more detailed and calibrated system for licensing of engineers along with the prerequisites of education, experience and competency tests. *Did a study of such systems inform the process of preparing the document?*
- This document indirectly does away with any kind of licensing system of structural engineers. This may not augur well for India.

d) Is the document adhering to the requirements of Competition Commission of India's objective "to promote and sustain an enabling competition culture through engagement and enforcement that would inspire businesses to be fair, competitive and innovative"?

- By introducing a requirement of field experience for a Peer Reviewer, the documents willy-nilly debar Faculty of academic (engineering) institutions from Peer Review practice. This may be seen as an exclusive and unfair practice.
- We are aware that a large part of the Peer Review business is currently exclusively in the hands of a select few educational institutions but this must be remedied by being more inclusive and allowing both structural design engineers and engineering academics to be conducting Peer Review.
- There are some projects which demand more rigorous analysis and design which most practicing engineers may not have the resources to carry out. Academic Institutions also need to do some amount of Peer Review work to be in touch with the state of practice, so as to teach students in a relevant manner and help make them industry-ready. Academic institutions further need to understand the needs of the industry so as to engage in relevant research and development in areas required by the industry.

e) Does the document address small towns and villages which have no access to engineering manpower?

- The document needs to recognise the challenges of a country with paucity of technical skills in mofussil and must provide for the limitations for owner-driven housing. This has been provided in GPCE Act.

In closing,

- i) We suggest that all big Metros in India including Gurugram, Noida etc which do not have a system of licensing Structural Engineers, implement a licensing system for structural engineers (PDC/PC) based on that existing in metros like Mumbai.
- ii) Those towns and smaller cities that may not have the capacity to establish a system currently existing in Mumbai, Ahmedabad etc. may consider leveraging an existing license in a big city to register Structural engineers in that smaller city.
- iii) Exclusions of these requirements for user occupied small homes less than say 3 storeys and 2500 sq ft in villages and small towns need to be considered.
- iv) Registration/Licensing of engineers could also be considered on a State-wide basis. (It is not however usually implemented at a national level).

- v) We do not believe it is the mandate of the Bureau of Indian Standards to come up with a document to advise BAHJs on how to administer and regulate structural design in their respective constituency. It is already being regulated more efficiently, robustly and more comprehensively in many cities across India than what the document prescribes. The big cities that do not currently have such a system may study the model of Mumbai (or other city having a good system in place).
- vi) If at all the Bureau of Indian Standards would still like to continue on this task it has embarked upon, we suggest a reconstitution or at least a comprehensive expansion of the drafting/working committee to a Pan-India representation and which will reflect the wisdom of those who have been working with fine-tuning such a system over decades.

With thanks and regards.

Yours faithfully,



For Indian Society of Structural Engineers