

Building Code Revisions: Now is the Time

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The CIB Committee never thought changing the concrete section of the NYC Building Code would be easy because many sectors of the industry would be affected. We are encouraged by the desire of many concrete producers to increase the quality of concrete and to improve the image of the concrete producers.

As we were preparing to present our changes to the City Council, the testing laboratories made some counter proposals. We are presently reviewing their proposals and meeting with these organizations, individually, to discuss their suggestions and hopefully reach an agreement; but we must set a date, at which time we go forward with some meaningful changes or drop this effort if meaningful change is not possible. Meaningful change to the building code is only possible if we all accept some basic principals:

- The concrete producers must take responsibility for mix designs and concrete produced at their plants.
- Building Codes are written to protect the public, and not industry.

Producer Responsibility

There cannot be any meaningful changes to the code unless concrete producers take responsibility for the concrete they produce. Only the concrete producers know the quality and quantity of materials they are putting into their concrete mixes. To mandate that a purchaser of concrete, or Engineer of Record, be required by code to send someone to the

plant to look over the concrete producers shoulders to make sure they are getting the approved mix design is a quality assurance facade and a waste of money. If a concrete producer is using poor quality cement or is shipping a concrete mix with less cement than required by the approved mix design, having a plant inspector hired by the Engineer of Record will not change the poor outcome.

Minimum Cement Factors

Furthermore, mandated minimum cement factors have slowed the process of incorporating new technology and materials into concrete mixes, and are no substitute for plant and field Quality Control. If all concrete producers must use the same cement factor for the majority of concrete produced in NYC, how do they maximize profits? Profits should be maximized by good QC procedures and incorporating new materials and technology into our concrete mixes.

Based on our test data, concrete mix designs in New Jersey for 4000 and 5000psi concrete have lower cement factors and produce higher average strengths. This is achieved with no mandated minimum cement factors or plant inspections. Obviously the materials used and quality control are the difference. The bottom line is, we spend more money for plant inspections and concrete mixes in NYC with higher cement contents and get less in return. The changes we are proposing will NOT increase the overall

cost for a cubic yard of concrete.

Testing laboratories should realize that the intent of the proposed change, to have the concrete producer perform quality control testing and not the purchaser or Engineer of Record, was to put the responsibility for quality control where it belongs, with the concrete producer, and not to take work away from the laboratories.

Certainly concrete batch plants can hire testing laboratories to perform this and other functions. But the responsibility for testing at the plant must be with the batch plant owner. Incidentally, this is also the philosophy of the National Ready Mixed Concrete Association.

It should be known that asphalt producers in NYC submit their own mix designs and have quality control testing performed at the batch plants by their own staff or staff from a licensed testing laboratory hired by the plant, whereas at concrete batch plants there is virtually no QC testing performed by the concrete batch plants.

Keep Testing

We do not advocate less testing. However, we believe that the Quality Acceptance testing should be done on site, where the owner is most interested in confirming that the mix projects meet the specified requirements. If we continue to hold on to practices that have been discredited and discarded by others years ago, the NYC concrete industry will never improve concrete quality and upgrade the industry image. ■