

17 November 2020

To: All Authorized Persons  
Registered Structural Engineers  
Registered Geotechnical Engineers  
Registered Inspectors  
Registered General Building Contractors  
Registered Specialist Contractors  
Registered Minor Works Contractors

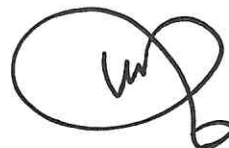
Dear Sir/Madam,

**Amendments to Code of Practice for  
Precast Concrete Construction 2016**

The Technical Committee (TC) on Code of Practice for Precast Concrete Construction 2016 (the Code) set up by the Buildings Department (BD) regularly collects views and feedback received from the practitioners and the stakeholders arising from the use of the Code, and reviews the contents thereof for the necessary update.

2. Having considered the TC's recommendations, certain amendments to the Code (as detailed at Annex) are promulgated with immediate effect from the date of this letter.
3. The amendments have been uploaded to BD website [www.bd.gov.hk](http://www.bd.gov.hk) under the "Code and design manuals" page of the "Resources" section.

Yours faithfully,



( HO Hon-kit, Humphrey )  
Assistant Director/New Buildings 2  
for Building Authority

**Amendments to the Code of Practice for Precast Concrete Construction 2016  
( November 2020 )**

Legends:

-  Amended
-  Deleted

**Amendments to the Code of Practice for Precast Concrete Construction 2016**

Item	Current version	Amendments
1. Clause 2.4.3 paragraph 2	In respect of concrete cover requirements for protection against fire, the Code of Practice for Fire Safety in Buildings should be followed, whereas for protection against corrosion, the requirements under the Building (Construction) Regulations should be adopted.	In respect of concrete cover requirements for protection against fire, the Code of Practice for Fire Safety in Buildings should be followed, whereas for protection against corrosion, the requirements under the <b>Code of Practice for Structural Use of Concrete 2013</b> should be adopted.
2. Clause 2.4.4.1	<p>General</p> <p>To achieve durability, connections should be properly filled with suitable material to prevent corrosion, cracking or spalling of concrete.</p>	<p>General</p> <p>To achieve durability, connections should be properly filled with suitable material to prevent corrosion, cracking, <b>spalling of concrete or water seepage.</b></p>
3. Clause 2.6.1	<p>General</p> <p>For the requirements on the use of materials, the Building (Construction) Regulations should be followed. The material properties used for design should be obtained from the Code of Practice for Structural Use of Concrete.</p>	<p>General</p> <p>For the requirements on the use of materials, the Building (Construction) Regulations <b>and the Code of Practice for Structural Use of Concrete 2013</b> should be followed. The material properties used for design should be obtained from the Code of Practice for Structural Use of Concrete <b>2013.</b></p>

<p>4. Clause 2.6.2.1</p>	<p><i>Alkali-silica reaction</i></p> <p>Aggregates containing silica minerals are susceptible to attack by alkalis (Na<sub>2</sub>O and K<sub>2</sub>O) from the cement or other sources. Alkali-silica reaction causes cracking and reduces the strength of concrete.</p> <p>Effective means of reducing the risk of alkali aggregate reaction include:</p> <ul style="list-style-type: none"> <li>• control on the amount of cement used in the concrete mix;</li> <li>• use of a low alkali cement;</li> <li>• use of an appropriate cement replacement such as pulverised fuel ash (pfa); and</li> <li>• the reactive alkali content of concrete expressed as the equivalent sodium oxide per cubic metre should not exceed 3.0 kg.</li> </ul> <p>The concrete supplier should submit to the authorized person or registered structural engineer a mix design and Hong Kong Laboratory Accreditation Scheme (HOKLAS) endorsed test certificates giving calculations and test results demonstrating that the mix complies with the above limitation on reactive alkali content.</p>	<p><i>Alkali-silica reaction</i></p> <p>Aggregates containing silica minerals are susceptible to attack by alkalis (Na<sub>2</sub>O and K<sub>2</sub>O) from the cement or other sources. Alkali-silica reaction causes cracking and reduces the strength of concrete.</p> <p>Effective means of reducing the risk of alkali aggregate reaction include:</p> <ul style="list-style-type: none"> <li>• control on the amount of cement used in the concrete mix;</li> <li>• use of a low alkali cement;</li> <li>• use of an appropriate cement replacement such as pulverised fuel ash (pfa);</li> <li>• the reactive alkali content of concrete expressed as the equivalent sodium oxide per cubic metre should not exceed 3.0 kg;</li> <li>• seeking expert advice before alkali reactive aggregates are used;</li> <li>• use of non-reactive aggregate in accordance with CS1; or</li> <li>• reducing the access of moisture, i.e. restricting the amount of water ingress from the environment.</li> </ul> <p>The concrete supplier should submit to the authorized person or registered structural engineer a mix design and Hong Kong Laboratory Accreditation Scheme (HOKLAS) endorsed test certificates giving calculations and test results demonstrating that the mix complies with the above limitation on reactive alkali content.</p>
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<p>5. Footnote of Figure A6 under Appendix A</p>	<p><u>WALL TO WALL HORIZONTAL CONNECTION</u> ( CAPABLE OF FUNCTIONING AS SHEAR WALL ) ( FIGURE A6 )</p>	<p><u>WALL TO WALL HORIZONTAL CONNECTION</u> ( CAPABLE OF FUNCTIONING AS SHEAR WALL ) ( FIGURE A6 )</p> <p>Note : The connection detail is extracted from a technical paper in the Journal of Southeast University (Natural Science Edition) (東南大學學報(自然科學版) published in May 2013. Permission to reproduce the diagram showing the connection detail is granted by the author of the paper.</p>
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