

QSPSC

Certification Scheme

Development

Presented by
Hong Kong Quality Assurance Agency



Quality Scheme for the Production and Supply of Concrete (QSPSC)

- Administrative Regulations
- Technical Regulations

What is QSPSC

- “The purpose of the scheme is to ensure that all concrete provided by Participants meet Purchasers’ specified requirements.” — QSPSC. Admin Regulations Clause. 1.1
- “An effective quality system shall be established, documented and maintained in accordance with ISO9001 to ensure and demonstrate that concrete produced and supplied under the Scheme contains to the specification agreed with the Purchaser and with these Regulations” — QSPSC Tech. Regulations Clause 2.1

What is QSPSC



QSPSC

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ISO 9001

**Concrete
Quality
Management
System
Model**

■ Characteristics of QSPSC

- Local scheme specific for Hong Kong construction projects
- Pair with ISO 9001
- Tailor-made for concrete suppliers

Information of QSPSC

- All existing commercial concrete batching plants in Hong Kong are applying QSPSC
- QSPSC has 15 years history
 - The first issue of QSPSC document was published on 28th September 1991
 - The first QSPSC certificate was issued on 29th April 1992
- Existing No. of certificates - around 60 cert.
- Highest No. of valid certificate is around 130 cert. in 1997-2000

Why to develop QSPSC?

- Because of
 - Unstable concrete quality 20 years ago
 - Hong Kong Housing Authority and some Government Departments wanted to improve the concrete quality at that time

Contractual Relationship

- Developers did not have direct contractual relationship with concrete suppliers
- Contractors select concrete suppliers on their own
- Batching Plant may not be in the site area
- Concrete quality cannot be fully determined during “Receiving Inspection”

■ Key Contractual Control

- Approval of Concrete Design
- Site Workability Test
- Compressive Strength Test (7/28 days)
- Non-destructive Test

Why QSPSC was developed by HKQAA?

- The purpose of setting up HKQAA was to assist industry & commerce in the development of quality system
- HKQAA is a non-profit distributing organization
- HKQAA was formed by the Industry Department of Hong Kong Government in 1989 for ISO 9000 certification service

Key Considerations

- Concrete Design Stage
 - Concrete Design
- Production Stage
 - Plant and Equipment Requirement
 - Material Storage and Handling Requirement
 - Preventive Maintenance System
 - Accuracy of Weighting Equipment
 - Routine Calibration of Equipment
 - Operation Tolerance

Key Considerations

■ Production Stage

- Mixer, Mixer Truck Requirement
- Traceability System
- Quality Control System (sampling plan, testing plan, statistical control system)
- Training
- Quality Record System

■ Role of HKQAA

- The success of the scheme is subject to agreed and accepted by all interested parties (developers, consultants, contractors and concrete suppliers)
- A Technical Committee was set-up by HKQAA to develop the QSPSC scheme

Role of HKQAA

- HKQAA is responsible for
 - Organizing technical committee and facilitating the meetings & communications
 - Scheme administration
 - Giving advice on certification issue

Development History

- Technical Committee of QSPSC was established in Feb 1990.
- Organization of Technical Committee
 - Chairman and Members of HKQAA Governing Council
 - **Representative from**
 - Building Department
 - Hong Kong Housing Authority
 - SCCT
 - Hong Kong Contractors Association
 - The Concrete Producers Association of Hong Kong Limited
 - Laboratory
 - Independent Professional

HKQAA Technical Committee

Members in 1990

Chairman

Mr. G. G. Payne (Representing HKQAA)

Members

Mr. R.A.M. Watkins (Representing Authorized Person/Registered Structural Engineer)

Mr. P.J. Osborne (Representing Buildings Ordinance Office)

Mr. Peter R. Jones (Representing Concrete Producers Association Hong Kong Limited)

Mr. Mike Wall (Representing Concrete Producers Association Hong Kong Limited)

Mr. W.K. Hamilton (Representing Hong Kong Contractors Association)

Mr. Baile Siaw (Representing Hong Kong Contractors Association)

Mr. H.J. Crowly (Representing Hong Kong Laboratory Accreditation Scheme
Hong Kong Government)

Mr. R.H. Pilling (Representing Standing Committee on Concrete Technology)

Mr. S.K. Ho (Representing Hong Kong Housing Authority
Hong Kong Government)

Mr. C.T. Wong (Representing Hong Kong Housing Authority
Hong Kong Government)

Secretary (for technical committee)

Mr. C. K. Chan (Representing Hong Kong Housing Authority
Hong Kong Government)

HKQAA Technical Committee Members in 2005

Chairman

Mr. Peter K.W. Mok (Representing HKQAA)

Members

Mr. Edwin Fu (Representing Building Department)

Dr. H.W. Pang (Representing Hong Kong Housing Authority
Hong Kong Government)

Mr. Baile Siaw (Representing Hong Kong Contractors Association)

Mr. Samson Wong (Representing Hong Kong Housing Authority
Hong Kong Government)

Dr. Tommy Y. Lo (Representing City University of Hong Kong)

Mr. Y.C. Chan (Representing Civil Engineering & Development Department
Hong Kong Government)

Mr. John Coombes (Representing Concrete Producers Association Hong Kong
Limited)

Working Group Members of HKQAA

Chairman

Dr. Tommy Y Lo (Representing City University of Hong Kong)

Members

Mr. Stan D Cheesman (Representing MD Associates Limited)

Mr. John Leich (Representing Concrete Producers Association Hong Kong Limited)

Mr. Baile Siaw (Representing Hong Kong Contractors Association)

Mr. Samson Wong (Representing Hong Kong Housing Authority
Hong Kong Government)

Mr. Steven Chak (Representing Civil Engineering & Development Department
Hong Kong Government)

Mr. Ranjit Ratilal (Representing Concrete Producers Association Hong Kong Limited)

Dr. Michael Lam (Representing HKQAA)

Mr. PC Chan (Representing HKQAA)

Mr. Wilman Chan (Representing HKQAA)

Mr. Franki Suen (Representing HKQAA)

■ Key Development Experience

- Communications
- Balance of expectation of all interested parties
- Advantage from non-profit distributing organization
- Not focus on highest requirements but feasible and acceptable requirements

Current Status

At present, QSPSC is widely accepted in the market:

- All government projects required QSPSC concrete
- MTRC
- KCRC
- Airport Authority
- CLP
- HKE
- Large Consultants
- Hong Kong-Shenzhen Western Corridor(深港西部通道)
- The Shanghai Concrete Industry Association has consulted HKQAA for concrete scheme development in Shanghai

International Accreditation

- The QSPSC Certification Scheme has been accredited by UKAS (United Kingdom Accreditation Service) since 1997
- HKQAA started to issue the QSPSC Product Certificates since 2000

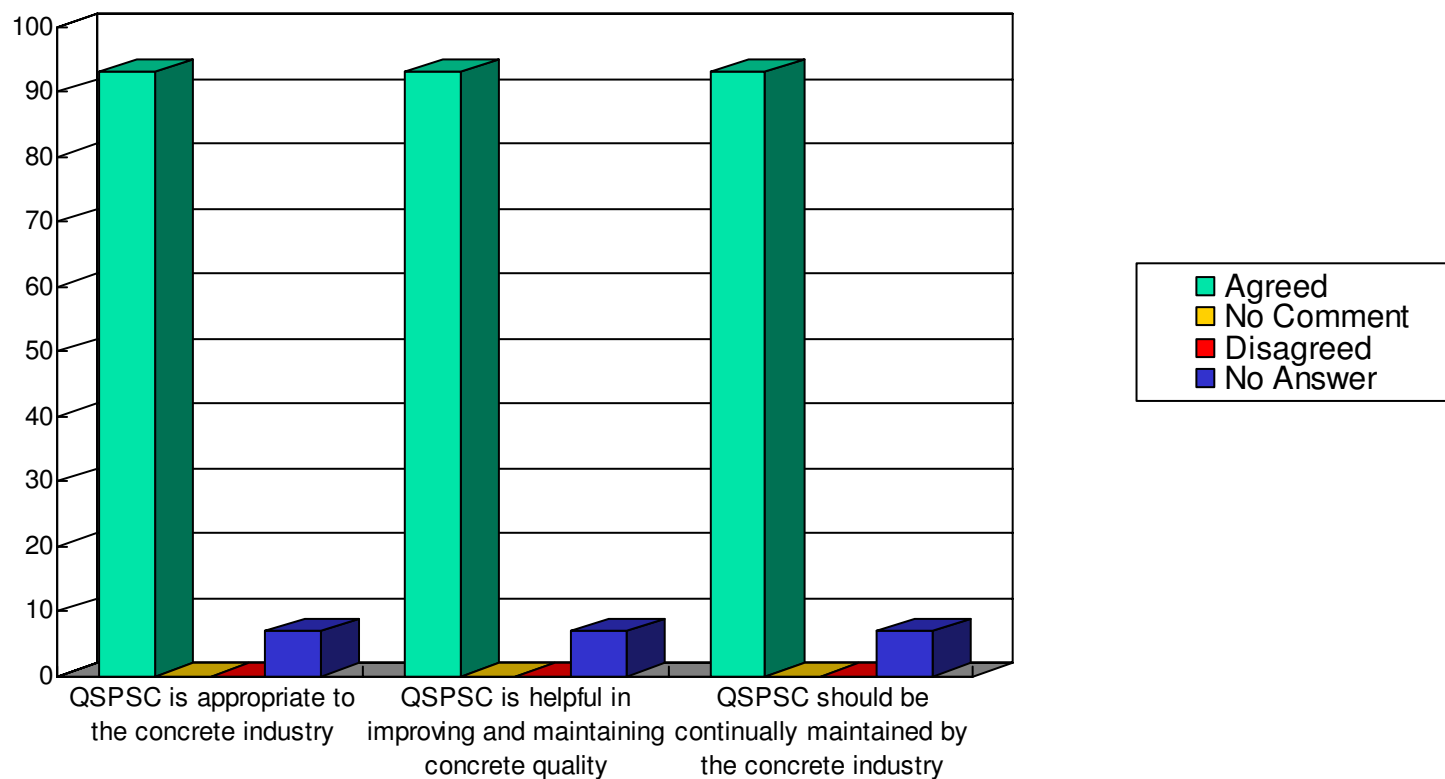


QSPSC : 2000
Certificate No.: CCXXXX-P

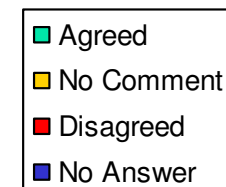
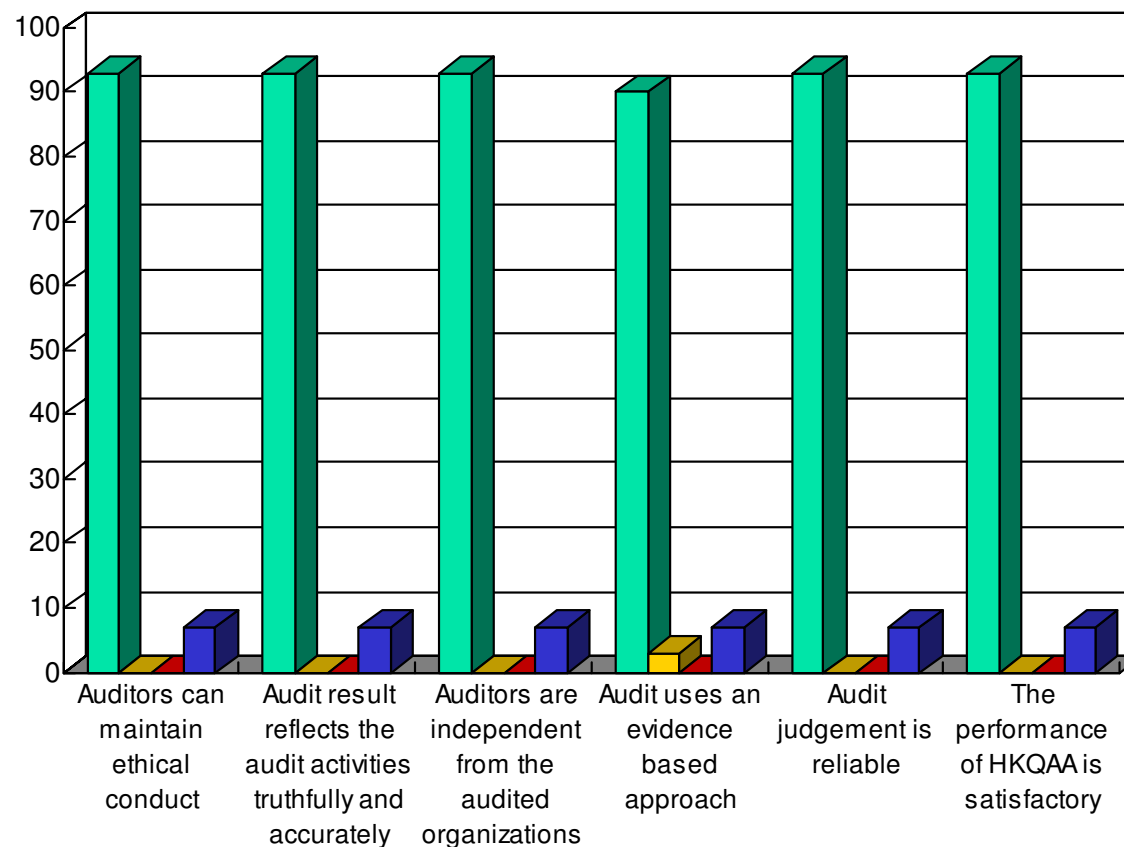
Customer Survey

- Customer Survey in 2005 regarding HKQAA's service
 - Total 29 out of 37 companies response to the survey
 - Response rate is 78%

The Performance of QSPSC



Certification Service of HKQAA



What will be next?

- HKAS Accreditation - Product Certification
- Scheme administration may be taken up by Government in future

Thank You