Summary of Decisions of the Structural Engineering Committee
SEC 9/2009 held on 07.10.2009

(a) Case 9/2009

Issue: Use of mechanical couplers as equivalence of full strength welded splices

Recommendation: To accept mechanical couplers be used in any location to facilitate the fixing of reinforcement bars as per full strength welded splices without being subject to the restrictions for laps and mechanical couplers stipulated in clauses 9.9.2.1(d) of the Code of Practice for Structural Use of Concrete 2004 (the 2004 Code) on the following conditions:

1. The couplers shall be tested in accordance with US standard AC 133 "Acceptance Criteria for Mechanical Connectors for Steel Bar Reinforcement" in local HOKLAS accredited laboratories (or overseas laboratories accredited by other accreditation bodies which have reached mutual recognition agreements with HOKLAS) to establish that the couplers comply with the requirements of Type 2 mechanical splices as specified in US Standard ACI-318 "Building Code Requirements for Structural Concrete";

2. The couplers shall also be tested in local HOKLAS accredited laboratories to establish that the couplers comply with the requirements stated in Clause 3.2.8.2 of the 2004 Code and the criteria that the tensile strength of the coupled bar assembly should exceed 529 N/mm^2 for grade 460; and

3. Full test reports and quality assurance schemes from manufacturer and purchaser shall be submitted for BD's acceptance.

Decision:

1. After deliberations and taking into consideration the precedent cases, Members endorsed the recommendation.

2. It was agreed that in future for cases adopting similar approach and acceptance criteria as had been deliberated and agreed in these SEC cases, referral to SEC would not be necessary. Referral to TSU would however still be necessary until an EM instruction was put in place for this purpose.