

**Information Paper for Legco Panel on Housing**  
**Suspected Use of Rejected Substandard Reinforcement in the**  
**Home Ownership Scheme Development at**  
**Tung Chung Area 30 Phase 3**

**Purpose**

This paper informs Members of an incident concerning the suspected use of rejected substandard reinforcement in the Home Ownership Scheme (HOS) Development at Tung Chung Area 30 Phase 3, and the actions taken by the Housing Department (HD).

**Background**

2. The HOS development at Tung Chung Area 30 Phase 3 comprises four 41-storey Concord blocks providing 1,280 domestic flats. The building contract commenced in July 1998 and was scheduled for completion in November 2000. To date, the domestic flats have not been put up for sale.

3. Cheung Kee Fung Cheung Construction Co. Ltd. (CKFC) is the main contractor for this contract. In early 2000, the Independent Commission Against Corruption (ICAC) conducted an investigation of the building works at Tung Chung Area 30 Phase 3. Six people from CKFC were arrested for suspected corruption involving substandard reinforcement.

**Rejected Substandard Reinforcement**

4. The concerned substandard reinforcement bars related to some batches delivered to site in early 1999. They had failed the laboratory tests on yield stress or mass density by a small margin and were rejected by HD.

5. HD is verifying whether these rejected substandard reinforcement bars, constituting 2-3% of the total delivery, were re-employed in the construction site.

## **Current Quality Control System for Reinforcement**

6. In accordance with HD's specification, all reinforcement shall comply with the Construction Standard for Carbon Steel Bars for the Reinforcement of Concrete issued by the HKSAR Government. HD has developed an effective quality control system for reinforcement to ensure compliance with this standard. This system, which is executed by site inspectorate staff, could be briefly described below:

- (i) Check that the locations of stockpiles for each consignment delivered are identified with standardized colour marks. Different colour marks represent different classes of reinforcement, namely, (1) pending testing, (2) compliance and (3) non-compliance.
- (ii) Check that the mill certificates, weighing certificates and delivery receipts are relevant to the consignment of reinforcement and in compliance with the specification.
- (iii) Check the patterns, diameter, classification and heat number of the bars against the mill certificates, and the approximate quantity of reinforcement against the delivery receipts.
- (iv) Cut samples from each batch for testing of relevant material properties by the direct testing contractor employed by Housing Authority to ensure compliance with the Construction Standard for Carbon Steel Bars for the Reinforcement of Concrete.
- (v) In the event of any non-compliance, order in writing the removal from site within a specified time and keep record of the details of non-compliance and actions taken.

## **Structural Safety of the Buildings**

7. Structural checks of the building structure have confirmed that, even if the rejected substandard reinforcement bars were re-employed for construction, in view of the small quantity involved and the small margin of their failure, the structural safety of the blocks would not be affected.

8. There is NO question of the need to demolish the blocks.

#### **Actions Taken by Housing Authority**

9. The Housing Authority has taken the case most seriously and has been providing full assistance to the ICAC.

10. Based on the suspected dates of return of the rejected reinforcement, and allowing for the handling and cutting time, the Housing Authority has instructed CKFC to open up certain reinforced concrete structural elements, which were cast in the relevant period, for inspection and to check for the existence of rejected substandard reinforcement.

11. In the event that substandard reinforcement is found, the contractor is responsible for proposing any necessary remedial action.

12. All open-up inspections will be conducted by HD's Materials Testing Management Unit.

13. The buildings will not be certified for completion unless HD is satisfied that the quality of the buildings is up to the required standard.

#### **Penalty Actions Against CKFC**

14. Subject to further investigation, disciplinary actions may be taken against CKFC for contractual non-compliance.

15. In the meantime, CKFC is already restricted from tendering from June to August 2000, based on their performance on HD's contracts from October 1999 to March 2000.

16. The Housing Authority is in full support of the ICAC's action which underlines its determination to keep up the quality of housing.