

**Legislative Council Panel on Housing**

**Enhanced Measures to Tackle Water Seepage Problem  
in Public Rental Housing Flats**

**PURPOSE**

This paper briefs Members on the enhanced measures progressively implemented by the Hong Kong Housing Authority (HA) in recent years to tackle the water seepage problem in public rental housing (PRH) flats.

**BACKGROUND**

2. The HA receives about 15 000 to 20 000 seepage repair requests every year, amounting to less than 2.6% of the 770 000 PRH flats which is regarded as a low level.

3. Notwithstanding this low level, it is not easy to tackle water seepage problem. In general, the HA encounters the following problems:

- (a) aging of buildings and absence of a waterproofing layer in some older flats;
- (b) difficulty in diagnosing source of seepage;
- (c) leakage at defective pipework;
- (d) uncooperative tenants denying entry of Housing Department (HD) staff for inspection/ repair;
- (e) inadequate workmanship of contractors; and
- (f) Tenant Purchase Scheme (TPS) owners being reluctant to repair at their own expense.

4. As a responsible owner, the HA has reviewed and implemented several enhanced measures since 2010.

**ENHANCED MEASURES**

***Scientific identification and diagnosis***

5. In order to effectively diagnose the cause of seepage, we have applied several scientific equipment and methodology, such as moisture meter and fluorescent dye water test (**Annex 1**).

### ***Appropriate repair methods***

6. Applying 'Tanking' method to re-lay a new waterproofing layer is relatively effective in resolving the water seepage at toilet floor and has been used as a priority repair choice. Nuisance mitigation measures are also adopted, such as spraying water during the demolition of existing floor tiles and screeding in order to reduce dust. The repaired toilet will be handed over to the tenants within the same day.

7. If it is impossible to carry out tanking in a short period of time, temporary measures such as chemical injection will be adopted. Besides, localised repairs for pipe plinths, e.g., using high flow waterproofing grout (**Annex 2**), will also be considered. The prime objective is to abate the nuisance caused to the affected tenant within the shortest possible time.

### ***Enhanced seepage repairs specification and details***

8. To ensure the waterproofing performance, specifically-designed floor drain has been introduced and the specification of tanking and chemical injection has also been enhanced.

### ***Time Control***

9. The time required for processing a water seepage case largely depends on the complexity of the case and the extent of cooperation from the parties involved. We aim to arrange inspection within three working days upon receiving a seepage case and to complete the seepage repair within two months from the date of tenant's request.

### ***Quality Assurance***

10. Flats with seepage repairs completed would be revisited within one month on a random sampling basis. Moisture readings will be recorded to verify the effectiveness of repair.

### ***Hard-line approach for inaccessible cases***

11. For those uncooperative tenants who deny our entry for carrying out inspection and repairs, we will take a hard-line approach and enforce the Marking Scheme for Estate Management Enforcement in Public Housing Estates<sup>1</sup>.

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<sup>1</sup> Seven penalty points will be allotted for tenants denying the entry of HD staff for repair. For tenants with 16 or more valid points, the HD will take actions to terminate their tenancies or licences and recover their flats.

### ***Tighter monitoring on inaccessible cases***

12. A two-tier monitoring system is in place whereby the inaccessible cases are monitored at district level by the Estate Office and District Maintenance Office. At headquarters level, District Maintenance Offices are required to submit monthly report on progress and actions taken monthly.

### ***Concluded Improvements***

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13. With the implementation of the above-mentioned enhanced measures, the number of outstanding cases extending over three months has significantly decreased from over 700 in October 2010 to less than 30 in October 2014 (**Annex 3**), and the time taken for completion of seepage repair was reduced to 20 days on average.

### **WATER SEEPAGE AT TENANT PURCHASE SCHEME (TPS) ESTATES**

14. According to the Buildings Management Ordinance and the Deeds of Mutual Covenant, the maintenance responsibility for water seepage in TPS estates, as demarcated by the source of seepage is as follows:

- (a) Common parts (such as common pipe, roof and external walls)
  - Owners' Corporation (OC) shall be responsible.
- (b) Owners' flats
  - Owners shall be responsible.
- (c) Rental flats
  - The HA shall be responsible, as in other PRH estates.

15. According to our findings, the majority of the seepage complaints are connected with the owners' flats or the common parts of the building.

### ***Measures in tackling water seepage in TPS estates***

16. When a water seepage complaint from a rental flat in a TPS estate is related to the common parts, the HA will refer the case to the management office engaged by the OC for arrangement of repair.

17. If the source of seepage is related to an owner's flat, the HA will refer the case to the management office which shall then follow up with the owner, and if necessary, refer the case to the Joint Office of Food and Environmental Hygiene Department and Buildings Department (Joint Office) for investigation. The Joint Office will take action in accordance with the provisions of the Public Health and Municipal Services Ordinance.

18. The HA will monitor the work progress of the OC and the Joint Office, and provide assistance as necessary.

## **WAY FORWARD**

19. Despite the use of scientific technology, the causes of some seepage cases are complicated and it is not easy to identify the sources of seepage, particularly for cases involving multiple sources or intermittent water seepage. Therefore, the investigation for such cases may take a longer time. Notwithstanding the above challenges, the HA will endeavor to resolve the problem and minimise any nuisance to tenants.

**Transport and Housing Bureau  
November 2014**

## **Illustration of the Use of Moisture Meter and Florescent Dye Water Test**

### **Moisture Meter**



### **Florescent Dye Water Test**



**Installation of Pipe Plinth Jacket by High Flow Mortar**



**Outstanding Water Seepage Cases from Oct 2010 to Oct 2014**