

LCQ11: The work of the Joint Office

Following is a question by the Hon Paul Tse and a written reply by the Secretary for Development, Mr Michael Wong, in the Legislative Council today (April 29):

Question:

The Joint Office (JO), set up by the Food and Environmental Hygiene Department and the Buildings Department, is dedicated to handling reports on water seepage in buildings. In August 2013, JO applied infrared thermography and microwave tomography (new testing technologies) on a pilot basis for identifying the sources of water seepage. Since June 2018, JO has officially applied the new testing technologies to suitable cases in three districts, and it extended the application of the new testing technologies to five other districts in September 2019. Regarding the work of JO, will the Government inform this Council:

- (1) of the number of water seepage reports handled by JO in the 2019/2020 financial year; among them, the respective numbers of cases in which (i) the sources of water seepage were successfully identified, (ii) investigation was underway, and (iii) the sources of water seepage had not been identified but investigation was terminated; the longest and shortest handling time for concluded cases;
- (2) of the respective relevant figures of the three districts of Kwun Tong, Wong Tai Sin and Wan Chai in respect of the items mentioned in (1);
- (3) among the water seepage reports handled by JO in the 2019/2020 financial year, of the respective numbers and percentages of cases in which the new testing technologies and conventional testing methods were applied for identifying the sources of water seepage; how such figures compare with those in the preceding three financial years;
- (4) of the success rate of the new testing technologies in identifying the sources of water seepage;
- (5) whether the success rates in identifying the sources of water seepage in the aforesaid eight districts are generally higher than those in other districts; if so, whether the Government will expeditiously apply the new testing technologies to all cases in various districts across the territory (especially districts such as Kwun Tong and Wong Tai Sin where old buildings abound with a large number of water seepage cases); if so, of the details and timetable; if not, the reasons for that; and
- (6) given that as compared with the new testing technologies, conventional testing methods are more time consuming and less effective in identifying the sources of water seepage, whether members of the public may, when they seek assistance from JO, request JO to apply the new testing technologies for identifying the sources of water seepage, so as to shorten the time required

for handling the cases?

Reply:

President,

Proper management, maintenance and repair of buildings, including resolving water seepage problems in buildings, are the responsibilities of building owners and occupiers. To thoroughly solve water seepage problems requires the co-operation of the building owners and occupiers concerned. In general, if water seepage occurs in private buildings, the owners should first arrange their own investigation into the cause and, as appropriate, co-ordinate with other owners and occupiers concerned for repair works.

Nevertheless, the Government recognised that owners do encounter difficulties in dealing with water seepage problems. In view of this, the Government has set up the Joint Office (JO) under the Food and Environmental Hygiene Department (FEHD) and the Buildings Department (BD). Through inter-departmental coordination, the statutory power given under the Public Health and Municipal Services Ordinance (Chapter 132), the expertise of the relevant departments, as well as the co-operation of the building owners and occupiers concerned, the JO attempts to identify the source of water seepage through systematic testing methods so that the concerned owners would carry out the repair works to mitigate the health nuisance caused by seepage.

Generally speaking, JO's investigation of water seepage cases is carried out in three stages. JO staff are responsible for the investigation at Stage I (confirmation of water seepage condition) and Stage II (initial investigation includes colour water test of drainage pipes or reversible pressure test for water supply pipes). If the source of seepage could not be identified during Stage II investigation, Stage III investigation (professional investigation) would be pursued. At Stage III, the JO will engage outsourced consultants to assist in carrying out detailed investigation including moisture monitoring at seepage locations, ponding test for floor slabs, water spray test on walls as well as reversible pressure test for water supply pipes to identify the source of water seepage. For more complicated cases and also suitable cases in pilot districts, new testing technologies including infrared thermography (IT) and microwave tomography (MT) will be used. If the source of seepage can be identified in any stage of investigation, the JO will issue "nuisance notice" in accordance with the Public Health and Municipal Services Ordinance to the responsible party demanding abatement of the nuisance within a specified period.

In consultation with the Food and Health Bureau, the FEHD and the BD, the Development Bureau provides a consolidated reply to the six parts of the question as follows:

(1) and (2) Statistics on handling of water seepage reports by the JO in 2019 with breakdown for Kwun Tong, Wong Tai Sin and Wan Chai districts are tabulated below.

| Cases | All districts | Kwun Tong | Wong Tai Sin | Wan Chai |
|-------------------------------------------------------------------------------------|---------------|-----------|--------------|----------|
| (1) Reports received | 34 169 | 3 077 | 1 501 | 1 402 |
| (2) Reports handled (Note 1) | 28 096 | 1 710 | 876 | 1 734 |
| (3) Cases screened out amongst (2) (Note 2) | 13 867 | 880 | 221 | 836 |
| (4) Cases with investigation concluded amongst (2) | 14 229 | 830 | 655 | 898 |
| (i) Cases with source of water seepage identified | 5 663 | 302 | 331 | 247 |
| (ii) Cases with source of water seepage not identified and investigation terminated | 2 891 | 249 | 65 | 36 |
| (iii) Cases with water seepage ceased during investigation | 5 675 | 279 | 259 | 615 |
| (5) Reports undergoing investigation (Note 1) | 11 655 | 1 185 | 978 | 155 |

Note 1: The relevant number of reports does not necessarily correspond to the number of reports received in the same year.

Note 2: These include unjustified cases not meeting the 35 per cent moisture content criterion and withdrawn cases etc. where no investigation was conducted by the J0.

The time spent on investigating a water seepage cases varies due to a number of factors, including the nature and complexity of the case and whether cooperation from relevant owners or occupiers are obtained as J0 staff have to enter the premises concerned for carrying out non-destructive tests to identify the source of seepage. With the co-operation of the concerned owners/occupiers, generally speaking, the J0 could normally complete the investigation and inform the informant of the outcome within 90 working days. If the investigation could not be completed within 90 working days, the J0 will notify in writing the informant of the investigation progress. The J0 does not compile statistics on the time for investigating water seepage cases.

(3) to (6) As mentioned above, J0 staff use conventional testing methods for carrying out Stage II initial investigation of the source of seepage, such as colour water test for drainage pipes and reversible pressure test for water supply pipes. In cases where the source of seepage cannot be identified by Stage II initial investigation, J0 staff will carry out Stage III professional investigation with the assistance of outsourced consultants. Stage III professional investigation includes conventional testing methods, such as ponding test for floor slabs, water spray test on walls, reversible pressure test for water supply pipes, etc. For more complicated cases and suitable cases in pilot districts, new testing methods, such as IT and MT, will be used.

Since the second half of June 2018, the JO has fully applied new testing methods at Stage III professional investigation in three pilot districts (i.e. Kowloon City, Wan Chai and Central and Western), where applicable. With experience gained and data obtained through pilot application of the new testing methods, the JO has since September 2019 extended the new testing methods to another five pilot districts (i.e. Sham Shui Po, Kwai Tsing, Tuen Mun, Tai Po and North District). The JO is refining the technical guidelines and procedures relating to the use of the new testing methods and is planning to gradually extending such technologies to other districts.

Statistics on water seepage reports concluded and cases involving the use of new testing methods in the past three years are tabulated below.

| | 2017 | 2018 | 2019 |
|-----------------------------------------------------------------------------------------------|--------|--------|--------|
| (i) Concluded cases | 15 873 | 13 650 | 14 229 |
| (ii) Among the cases in (i) above, cases required professional investigation | 11 190 | 9 716 | 10 078 |
| (iii) Among the cases in (ii) above, concluded cases involving the use of new testing methods | 27 | 92 | 620 |

As at December 31, 2019, the success rate (Note 3) of cases using the new testing methods is some 80 per cent, which is higher than the success rate of around 60 per cent for cases using the conventional methods. The aforesaid success rates compare the effectiveness of the two types of testing methods irrespective of district. While IT and MT could be effective in investigating seepage through concrete slabs, they could not be effectively applied under some circumstances such as cases involving ceilings with concrete spalling, ceilings with tile finishes and blockage by pipes/building services. Where IT and MT could not be effectively applied, the JO has to resort to conventional testing methods.

Note 3i¹/₄

Cases with source of water seepage identified

Success Rate = $\frac{\text{Cases with source of water seepage identified}}{\text{Cases with source of water seepage identified} + \text{Cases with source of water seepage cannot be identified and investigation completed (excluding cases where investigation has not been completed due to, e.g. seepage ceases to exist during investigation)}}$