

UPGRADING THE FIRE SAFETY IN INDUSTRIAL BUILDINGS

Executive Summary

1. The planning, design and construction of a building is required to comply with the Buildings Ordinance (Cap. 123) and its subsidiary legislation, as well as the codes of practice in force at the time of the submission of the relevant building plans. For old buildings, their fire safety standards generally fall short of the standards prescribed in the prevailing codes of practice published by the Fire Services Department (FSD) and the Buildings Department (BD). In June 2020, the Fire Safety (Industrial Buildings) Ordinance (FS(IB)O — Cap. 636) came into operation, aiming at improving the fire safety provisions of industrial buildings constructed on or before 1 March 1987, or those constructed with their building plans first submitted to the Building Authority for approval on or before the same date (hereinafter referred to as target industrial buildings (TIBs)). FS(IB)O empowers FSD and BD to inspect TIBs and issue fire safety directions (FSDns) to require the owners and/or occupiers to upgrade the fire safety on the provision or improvement of fire service installations or equipment (FSI) and fire safety construction. FS(IB)O is implemented in two phases. Phase 1 includes TIBs which were constructed or with building plans first submitted for approval in or before March 1973 and Phase 2 includes TIBs which were constructed or with building plans first submitted for approval on or before 1 March 1987 (i.e. between 1 April 1973 and 1 March 1987). As at 30 June 2025, there were 1,212 TIBs, comprising 437 and 775 TIBs in Phases 1 and 2 respectively.

2. To address the fire safety concern of mini-storage premises (MSPs), relevant government departments, including FSD and BD, conducted a territory-wide inspection programme of MSPs during the period from 28 June 2016 to 11 June 2017. Thereafter, FSD and BD conduct inspections on newly-identified MSPs containing cluster(s) of lockers/storage cubicles allowing direct access for the public to store and retrieve articles (i.e. target MSPs). Against the irregularities in target MSPs in respect of fire safety perspective, FSD and BD have been taking enforcement actions under the Fire Services (Fire Hazard Abatement) Regulation (Cap. 95F) and the Buildings Ordinance respectively. The Audit Commission (Audit) has recently conducted a review to examine the work of FSD and BD in upgrading fire safety in industrial buildings.

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Inspection and issuance of fire safety directions

3. ***Room for improvement in drawing up implementation schedule for inspection of TIBs.*** With reference to the annual inspection target of 60 TIBs, FSD and BD set out the implementation schedule, prioritising TIBs under Phase 1 that are not sprinkler-protected, in the order of other fire risk factors assessed by FSD, and then by building age. While the availability of automatic sprinkler system was the major factor in determining the priority of inspection for TIBs under Phase 1, 82 (24%) of the 345 TIBs without any automatic sprinkler system or with partial sprinkler system only had not been inspected by FSD and BD as at 30 June 2025 (paras. 2.4, 2.6 and 2.7). Audit reviewed the implementation schedule of these 82 TIBs and found areas for improvement, as follows:

- (a) ***Need to make continued efforts in exploring a feasible and practicable approach for complying with FS(IB)O by owners of TIBs without lifts.*** According to BD, in late 2023, it was revealed that TIBs without lifts in the approved building plans might encounter genuine site constraints in providing a fireman's lift. Accordingly, the 37 TIBs without any lifts in the approved plans that were not sprinkler-protected or with partial sprinkler system only had been rescheduled for inspection to a later stage of Phase 1. FSD and BD were conducting a detailed analysis to categorise them into different batches on a risk basis, in order to formulate an implementation plan and establish alternative requirements, taking into account the building design features and other similarities (paras. 2.8 and 2.9); and
- (b) ***Need to regularly review the implementation schedule for inspection of TIBs under Phase 1.*** According to BD's Fire Safety Section Manual (FSSM), a lower priority would be accorded to TIBs having undergone major repair works not more than four years from the date of scheduled inspection so as to avoid undue disturbance to the owners. In this connection, 26 TIBs that are not sprinkler-protected or with partial sprinkler system only have been deferred for inspection to the end of Phase 1. Since the major repair works might not aim for enhancing the fire safety of the buildings and the works of some of these 26 TIBs have been completed more than four years ago, BD needs to, in collaboration with FSD, regularly review the implementation schedule for inspection of TIBs under Phase 1, taking into account the prevailing fire risk of TIBs (para. 2.10).

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4. *Need to review existing procedures and explore alternative measures for issuing FSDns regarding mechanical ventilating system in locked units which FSD cannot inspect.* Audit noted that for locked units which FSD could not inspect, the requirement of the provision or improvement of emergency lighting within the area occupied by the occupier was included in the FSDns issued to the owners. However, FSD would not issue FSDns relating to the requirement of automatic cut-off device for mechanical ventilating system in the occupied area to the owners/occupiers if inspection could not be conducted. Audit considers that FSD needs to review its existing procedures and explore alternative measures for issuing FSDns regarding the provision of an automatic cut-off device for mechanical ventilating system in locked units which FSD cannot inspect (paras. 2.19 and 20).

5. *Timeliness of issuance of FSDns.* FSD and BD issue their own FSDns on an agreed date (as far as possible) and the date of issuance should be, in principle, within four months after the initial inspection. As at 30 June 2025, 17,727 and 6,566 FSDns were issued by FSD and BD respectively to the owners/occupiers of 252 TIBs. Audit analysed the 273 TIBs inspected as at 30 June 2025 and noted that FSD and BD issued FSDns to owners and occupiers of 73 (27%) TIBs more than four months after the inspection and FSDns had not been issued to owners/occupiers of 1 (1%) TIB more than four months after the inspection. Since the timely issuance of FSDns is vital as it triggers the entire process for improving the fire safety of TIBs, FSD and BD need to make continued efforts in enhancing the timeliness of issuance of FSDns (para. 2.23).

6. *Need to consider conducting ownership check earlier for TIBs involving a large quantity of units.* For each TIB, BD sends the memorandum to the Land Registry, requesting for ownership information within four weeks. However, for the 16 TIBs in which FSD and BD took more than 6 months to issue FSDns after initial inspections, BD received the reply from the Land Registry after more than four weeks, ranging from 6 to 28 weeks (para. 2.24(c)).

Follow-up actions on fire safety directions issued by the Fire Services Department

7. *Need to keep in view the progress of provision or improvement of FSI.* As at 30 June 2025, the compliance rates of FSDns and fire safety compliance orders (FSCOs) for fire safety requirements involving common parts and inside individual

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units were 0% and 86% respectively. Although FS(IB)O has been in force for more than five years since its implementation on 19 June 2020, the fire safety improvement works involving common parts have yet to commence for most of the TIBs. While noting that improvement works involving common parts are more complex due to building constraints and the need of reaching consensus among owners, and that FSD has rendered assistance to relevant parties on various fronts, Audit considers that FSD needs to keep in view the progress of provision or improvement of FSI by owners and make continued efforts in offering necessary assistance to owners where appropriate (paras. 3.4 and 3.6).

8. ***Room for improvement in performing periodic progress checks.*** Audit sample examination of FSD's periodic progress checks performed upon expiry for FSDns relating to the common parts of 12 TIBs revealed that:

- (a) ***Timeframe not stipulated in the Fire Protection Commands Procedural Instructions (CPI(FP)) to perform periodic progress checks.*** While there was no timeframe stipulated in CPI(FP) to perform periodic progress checks, FSD performed the checks 1 day to 57 days (averaging 19 days) before expiry of the relevant FSDns for 6 (50%) TIBs and 11 to 89 days (averaging 33 days) after expiry of the relevant FSDns for the other 6 (50%) TIBs;
- (b) ***Inspections not reported in a timely manner.*** According to CPI(FP), the responsible inspection officers should report the findings of the checks as far as possible within 10 working days after the periodic progress checks. However, inspection officers took 14 to 73 working days (averaging 36 working days) to report the findings for 7 (58%) of the 12 TIBs; and
- (c) ***Timeframe not stipulated in CPI(FP) to issue post-warning letters.*** After the periodic progress checks of the 12 TIBs, no significant progress was noted by FSD in 3 TIBs and thus, post-warning letters were issued to the owners (involving 124 FSDns). While there was no timeframe stipulated in CPI(FP) to issue post-warning letters, FSD took 50 to 63 days (averaging 58 days) after expiry of the relevant FSDns to issue the post-warning letters (paras. 3.12(b) and 3.13).

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9. ***Room for improvement in issuing certificates of compliance.*** According to CPI(FP), an inspection officer will arrange an acceptance inspection to be carried out within 15 working days after receiving a notification from an owner/occupier upon completion of the fire safety improvement works. During the period from 1 July to 31 December 2024, FSD carried out acceptance inspections and concluded that the results were satisfactory for 882 FSDNs. Audit examination of these 882 FSDNs revealed that:

- (a) ***Acceptance inspections not carried out in a timely manner.*** For 61 (7% of 882) FSDNs, FSD carried out acceptance inspections more than 15 working days after receiving relevant notifications, ranging from 17 to 95 working days; and
- (b) ***Certificates of compliance not issued in a timely manner.*** While timeframe was not set in CPI(FP) for the issuance of certificate of compliance, the certificates of compliance were issued more than 90 days after the relevant acceptance inspections for 291 (33% of 882) FSDNs, ranging from 91 to 274 days (paras. 3.17 and 3.18).

10. ***Need to consider stipulating timeframe for processing extension of time (EoT) applications.*** If the relevant owners or occupiers cannot complete the fire safety improvement works within the time limit specified on FSDNs issued by FSD, they may apply in writing, with supporting documents for the work progress, to FSD for EoT. In 2024, FSD received 156 applications for EoT, of which 145 (93%) were approved, and 11 (7%) were rejected due to no significant progress of the improvement works. Audit sample check of 25 approved applications revealed that FSD took 1 to 122 days (averaging 42 days) to approve and send out the EoT approval letters (paras. 3.23 and 3.24).

11. ***Need to review administrative procedures in registering FSCOs against the land register.*** Pursuant to FS(IB)O, an enforcement authority may cause an FSCO to be registered by memorial in the Land Registry against the land register of the respective buildings or part of a building, and if an enforcement authority is required to cause an FSCO to be registered, it must, as soon as practicable within one month beginning on the date of the FSCO, cause it to be registered. Audit analysis of FSD records on the registration of the 72 FSCOs (in force as at 30 June 2025) revealed that FSD took 50 to 193 days (averaging 96 days) to register the FSCOs against the land register (paras. 3.33 and 3.34).

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12. *Need to update the information of FSDns and FSCOs in the designated website on a timely basis.* In order to enable the public to obtain the relevant information and enhance their awareness of the outstanding legal liabilities (if any) of the TIBs, the information (including the serial number, address of the building or part, date and compliance status) of FSDns and FSCOs will be published in a designated website in accordance with FS(IB)O. Audit visited the designated website on 5 September 2025 and noted that:

- (a) among the 420 FSDns (involving 25 TIBs) issued in July and August 2025, the information of 144 (34%) FSDns (involving 3 TIBs) had not been published in the website; and
- (b) among the 72 FSCOs with expiry dates after 30 June 2025, the information of 1 (1%) FSCO had not been published in the website, and that of the other 71 (99%) FSCOs were wrongly shown as FSDns which had different legal liabilities (paras. 3.37 and 3.38).

Follow-up actions on fire safety directions issued by the Buildings Department

13. *Room for improvement in arranging compliance inspections.* According to FSSM, when owners notify BD of works completion or submit certificates/test reports to BD, relevant case officers should arrange compliance inspections within 28 days and submit the inspection reports for endorsement by the Senior Building Surveyor not later than two months after the compliance inspections. Audit analysis of the Building Condition Information System (BCIS) records from 2021 to 2025 (up to June 2025) revealed that:

- (a) information on the dates of notification of works completion by owners were not captured in BCIS. As a result, Audit was unable to ascertain whether the 28-day time limit of arranging compliance inspection was complied with; and
- (b) as regards the 2-month time limit of submitting inspection reports for endorsement by the Senior Building Surveyor, for the 879 compliant FSDns as at 30 June 2025, compliance letters were issued two months after the compliance inspections for 263 (30%) FSDns, with delays ranging from

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1 day to 451 days, averaging 70 days, and the relevant information was not captured in BCIS for 374 (43%) FSDns (para. 4.5).

14. ***Need to enhance collection of management statistics.*** While according to FSSM, milestones have to be input and monitored through appropriate statistical means with a view to ensuring timely actions and preventing backlogging of outstanding actions, information on notification date for completion and positive response from owners were not required to be entered into BCIS for FSDns issued for TIBs. Audit considers that BD needs to enhance the collection of management statistics and generation of management reports in BCIS for better monitoring of the progress of outstanding FSDns and follow-up actions taken by BD staff (para. 4.18).

15. ***Room for improvement in monitoring advisory letters issued.*** For unauthorised building works which are subject to statutory orders under section 24 of the Buildings Ordinance and affecting fire safety, advisory letters reminding the owners to carry out the required fire safety improvement when dealing with the section 24 orders will be issued. As at 30 June 2025, there were 79 non-compliant advisory letters, of which relating section 24 orders were discharged in relation to 33 (42% of 79) advisory letters. However, new FSDns were yet to be issued to the owners for the outstanding improvement works in the non-compliant advisory letters as at 30 June 2025 (paras. 4.19, 4.20 and 4.22).

16. ***Need to keep in view the development of the auto-generation of warning letters for non-compliant FSDns.*** According to FSSM, upon expiry of the compliance period and not later than three months from the expiry of FSDns or any extended time limit, warning letters should be issued for cases without positive response or submission of the required certificates/test reports from the owners. However, Audit noted that:

- (a) from 2021 to 2025 (up to June 2025), of the warning letters issued in relation to 3,807 FSDns, the issuance of the warning letters in relation to 2,529 (66%) FSDns did not meet the 3-month target. The delays ranged from 1 day to 1,239 days, averaging 137 days; and

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- (b) as at 30 June 2025, no warning letters had been issued to the owners in relation to 150 FSDns of which initial/extended compliance period had been expired for three months or more and were considered as without positive response.

According to BD, the auto-generation of warning letters for non-compliant FSDns function in BCIS was under development and would be implemented tentatively by December 2025 (paras. 4.26 and 4.27).

17. *Need to regularly update the status of remaining outstanding FSDns for timely referrals for taking prosecution actions.* According to FSSM, to ensure fairness and reduce duplication of efforts when referring cases for prosecution, case officers should also consider the practicality and possibility of dealing with default cases in the same building in one go. Audit sample check of 1 (involving 36 FSDns) of the 3 TIBs with prosecution actions taken revealed that 2 FSDns were already complied with, and 9 FSDns were referred to the Fast Track Prosecution Team (FPT) for taking prosecution actions in October 2023. As of June 2025, 22 of the remaining 25 FSDns considered as without positive response had not been referred for taking prosecution actions (paras. 4.28 and 4.30).

18. *Need to make continued efforts in referring non-compliant FSDns for taking prosecution actions.* In accordance with FS(IB)O, a prosecution for an offence may only be started before the end of 12 months beginning on the date of which the offence is discovered by, or comes to the notice of, the enforcement authority. Audit noted that for the 56 FSDns referred to FPT on or before March 2025 for taking prosecution actions, for 13 FSDns pending for taking prosecution actions, the time elapsed from the dates of compliance inspections where non-compliance was identified was over 12 months (ranging from 16 to 21 months as of June 2025). After case officers reconfirmed the non-compliance status of all the 13 cases, prosecution works had been re-activated in June 2025 (paras. 4.28 and 4.32).

Other related issues

19. *Need to make continued efforts in taking follow-up actions on outstanding fire hazard abatement notices (FHANs) and fire hazard orders (FHOs) issued to the operators of MSPs by FSD.* As at 30 June 2025, there were 129 target MSPs with outstanding FHANs or FHOs. Of which:

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- (a) FSD had not instigated any prosecution action against the operators of 34 target MSPs and prosecution was in progress against the operators of 3 target MSPs. Audit examination of the 19 target MSPs subject to initial inspections carried out during 2016 to 2021 revealed that:
- (i) 9 target MSPs were operated by the same company. However, FSD could not instigate prosecution action since the FHANs were not successfully served to the responsible person and the premises were locked when conducting follow-up inspections;
 - (ii) for 1 target MSP with fire hazard identified in 2020, FSD approved an EoT application submitted by the operator and the expiry date of the latest FHAN issued was December 2023; and
 - (iii) for 1 target MSP with fire hazard identified in 2020, FSD conducted follow-up inspection in June 2022 and concluded that the FHAN was complied with. In order to issue the compliance letter, the operator should provide the valid certificates of FSI. However, up to 30 June 2025, the submission of certificates of FSI was still pending; and
- (b) operators of 92 target MSPs were prosecuted with FHOs issued. Of the 92 target MSPs, 80 (87%) were initially inspected with fire hazard found in 2016 and 2017 (paras. 5.5, 5.6 and 5.8).
20. ***Need to make continued efforts in taking follow-up actions on outstanding statutory orders issued to owners of premises operating MSPs by BD.*** As at 30 June 2025, statutory orders issued to owners of 275 premises operating target MSPs had not been complied with. For 199 (72% of 275) premises, the compliance period of statutory orders issued to the owners were expired but not yet referred to the Legal Services Section for prosecution. In particular, for 104 (52%) of 199 premises, statutory orders were issued to the owners in 2016 and 2017. In addition, although warning letters were issued to owners of 164 (82% of 199) premises operating target MSPs, BD had only conducted inspection in 42 (21% of 199) premises during the period from January 2023 to June 2025 (paras. 5.12, 5.13 and 5.15).

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21. ***Financial assistance provided to owners.*** The Building Safety Loan Scheme (BSLS) was launched by BD to offer loans to individual owners of private buildings for carrying out maintenance and repair works to improve the safety of their buildings (para. 5.22). Audit examination found the following room for improvement:

- (a) ***Need to consider setting time limit for issuing reminders.*** According to BD's procedure manual for BSLS, all applications should normally be approved in 9 months from the date of receipt of the application. Audit analysis of the 29 premises with applications approved (involving 24 applications) from April 2020 to June 2025 (for carrying out improvement works in industrial buildings which include fire safety improvement works) found that 8 applications relating to 13 (45%) premises were approved over 9 months from the dates of receipt of the applications, with time taken ranging from 292 to 610 days and averaging 422 days. While no time limit for issuing reminders was stipulated in the procedure manual, the actual time between sending letters requesting for supporting documents and sending reminders varied. For instance, the average time for issuing the first reminders to owners' corporations was 116 days, ranging from 49 to 332 days (paras. 5.23 to 5.25); and

- (b) ***Need to step up the promotion of BSLS to owners of TIBs with FSDns issued.*** According to BD's procedure manual, promotional notice will be issued to owners' corporations for encouraging loan applications as appropriate. Audit scrutiny of the case files found that such promotional notices were usually issued to the owners' corporations in the letters requesting for supporting documents relating to the first application received for a particular building. Audit noted that applications relating to 5 of the 12 premises located at Phase 1 TIBs (where joint inspections had been conducted by FSD and BD with FSDns issued) were submitted after the issuance of FSDns, of which 3 applications were relating to works in individual units and their applications were submitted 468 days on average after FSDns were issued, ranging from 417 to 570 days (para. 5.28).

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Audit recommendations

22. **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has *recommended* that:**

- (a) **the Director of Fire Services and the Director of Buildings should make continued efforts in enhancing the timeliness of issuance of FSDns (para. 2.25);**

- (b) **the Director of Fire Services should:**
 - (i) **review FSD's existing procedures and explore alternative measures for issuing FSDns regarding the provision of an automatic cut-off device for mechanical ventilating system in locked units which FSD cannot inspect (para. 2.26);**

 - (ii) **keep in view the progress of provision or improvement of FSI by owners and make continued efforts in offering necessary assistance to owners where appropriate (para. 3.10(a));**

 - (iii) **maintain the timeliness of reporting the findings of periodic progress checks in accordance with CPI(FP) (para. 3.26(b));**

 - (iv) **stipulate the timeframes of performing periodic progress checks and issuing post-warning letters in CPI(FP) (para. 3.26(c));**

 - (v) **carry out acceptance inspections in accordance with the timeframe stipulated in CPI(FP) as far as practicable and maintain proper records on the acceptance inspections conducted (para. 3.26(d));**

 - (vi) **stipulate the 2-month timeframe in CPI(FP) for the issuance of certificates of compliance (para. 3.26(e));**

 - (vii) **consider stipulating timeframe for processing and sending out EoT approval/rejection letters in CPI(FP) (para. 3.26(g));**

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- (viii) **review FSD’s administrative procedures with a view to registering FSCOs against the land register of the respective buildings or part of a building in accordance with FS(IB)O in a timely manner (para. 3.35(c));**
 - (ix) **take measures to update the information of FSDns and FSCOs in the designated website on a timely basis (para. 3.39);**
 - (x) **make continued efforts in taking follow-up actions on outstanding FHANs and consider stepping up measures in handling prolonged non-compliant cases (e.g. applying for warrant for entry into target MSPs) (para. 5.18(a));**
 - (xi) **take measures to ensure that the FHAN is served to a legally authorised individual of the company operating the target MSP (para. 5.18(b)); and**
 - (xii) **make continued efforts in taking follow-up actions on outstanding FHOs (para. 5.18(c)); and**
- (c) **the Director of Buildings should:**
- (i) **make continued efforts in exploring a feasible and practicable approach for complying with FS(IB)O by owners of TIBs without lifts (para. 2.13(a));**
 - (ii) **in collaboration with FSD, regularly review the implementation schedule for inspection of TIBs under Phase 1, taking into account the prevailing fire risk of TIBs (para. 2.13(b));**
 - (iii) **consider conducting ownership check earlier for TIBs involving a large quantity of units with a view to ensuring the timeliness of issuance of FSDns (para. 2.27(b));**
 - (iv) **remind case officers to enter the required case data in BCIS for monitoring the compliance with the stipulated time limits in arranging compliance inspections and submitting inspection**

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- reports to the Senior Building Surveyor for endorsement (para. 4.23(a));
- (v) remind case officers to expedite the submission of inspection reports for endorsement by the Senior Building Surveyor so as to comply with the 2-month time limit as far as practicable (para. 4.23(b));
 - (vi) keep in view the development of the new platform and make use of it to improve the case management (para. 4.23(c));
 - (vii) enhance the collection of management statistics and generation of management reports in BCIS for better monitoring of the progress of outstanding FSDns and follow-up actions taken by BD staff (para. 4.23(g));
 - (viii) expedite the incorporation of the procedures of follow-up actions on advisory letters in FSSM including the timely issuance of FSDns for the outstanding improvement works in the non-compliant advisory letters (para. 4.23(h));
 - (ix) keep in view the development of the auto-generation of warning letters for non-compliant FSDns function in BCIS (para. 4.33(a));
 - (x) regularly update the status of the remaining outstanding FSDns in the same TIBs for timely referrals of non-compliant FSDns for taking prosecution actions (para. 4.33(b));
 - (xi) make continued efforts in referring the non-compliant FSDns to FPT for taking prosecution actions (para. 4.33(d));
 - (xii) make continued efforts in issuing warning letters and arranging compliance inspections with owners with long outstanding statutory orders (para. 5.19(a));

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- (xiii) **consider setting time limit for issuing reminders when processing BSLs applications in the procedural manual (para. 5.30(a)); and**
- (xiv) **issue promotional notice of BSLs together with FSDns to owners of TIBs (para. 5.30(b)).**

Response from the Government

23. The Secretary for Security and the Director of Fire Services generally agree with the audit recommendations. They have expressed appreciation on Audit's efforts in conducting this study and making recommendations on the work relating to upgrading the fire safety in industrial buildings.

24. The Secretary for Development and the Director of Buildings generally agree with the audit recommendations and would like to thank Audit for the review and the recommendations on the work relating to upgrading the fire safety in industrial buildings.