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Fire & Escape Doors

in
**High-rise/high-density
residential units**

- 1. Compartmentation and means of escape**
- 2. Provision of fire and escape door hardware**
 - a) Contractors who save you money (Really?)**
 - b) Qualified specifiers**
 - c) Qualified installers**
- 3. Maintenance of fire and escape doors**
 - a) No unauthorized retro-fitting**
 - b) Regular inspection**
- 4. Capital v. maintenance expenditure**
- 5. Pay-off – safer buildings**
- 6. Useful contacts**

- ❑ High-rise/high-density likely to take longer to evacuate, therefore



- Compartmentation needed to protect escape routes
- Compartmentation needed for “stay put” strategy
- Safer environment for fire fighters

- ❑ A passageway in a fire wall needs a sound, operational fire door



- Correctly specified hardware
 - ✓ Checked for component compatibility
 - ✓ Correctly installed
 - ✓ Regularly checked and maintained



- ❑ A qualified specifier (e.g. Registered Architectural Ironmonger) might have drawn up the door hardware specification
 - Components fit for purpose, correct level of duty, and CE marked, maybe Certifire approved
 - Components compatible with each other and with the door type
 - Specification compliant with ADB and *Code of Practice: Hardware for fire and escape doors*.

- ❑ The contractor gets quotes for cheaper alternatives
 - Lower level of duty
 - Lower level corrosion resistance
 - Might need more maintenance
 - Not compatible with each other or with the door type

Get RegAI sign-off for the specification

What goes wrong

❑ A carpenter fits the door hardware



- No training in fire door technology
- Probably on piecework rates, so in a hurry
- Hinges fitted upside down
- Intumescent gaskets not fitted around locks and behind hinges
- Over-sized mortises not correctly remedied
- Door closer speeds not adjusted
- Shorter screws used.

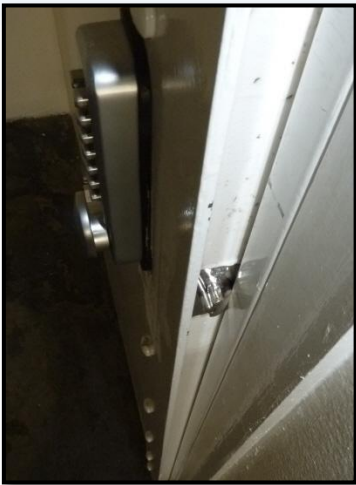
❑ The result is



- The doors do not replicate “as tested” condition
- Early failure of components leading lack of self-closing
- Door frame shaken loose from wall due to slamming

**Get qualified installers to fit fire doors
e.g. FIRAS; BM TRADA Q Mark; LPCB**

- ❑ Someone decides to retro-fit some extra hardware



(Photo courtesy of Arnold Tarling)

- No appreciation of fire or escape implications
- Is new item fire tested?
- Is it suitable for the type of fire door?
- Does it meet Approved Doc B recommendations for escape?
- Is its use approved by the *Code of Practice: Hardware for fire and escape doors?*

- ❑ The result is



- The doors do not replicate “as tested” condition
- Means of escape can be compromised

Get qualified advice for any retro-fit suggestions – from RegAI or DipFD

- ❑ Does the maintenance man know what to look for?



www.firecode.org.uk

- No training in fire door technology
- Are replacements fire tested and suitable for the type of fire door?
- Should replacement be better than previous component?
- Does it meet Approved Doc B recommendations for escape?
- Is its use approved by the *Code of Practice: Hardware for fire and escape doors*?

- ❑ The result often is

- Fire and escape doors deteriorate, or are compromised by ill-advised additions and repairs



Use staff with DipFD, and use FDIS Inspectors for a periodic health check

- ❑ Property Services Agency (PSA), which held much of the Government's civil estate, did research in late 1970's to find out how to reduce its massive maintenance costs, and found -

“Where doors and their hardware represent less than 1% of the total building costs, those doors and their hardware account for up to **80% of total maintenance costs.**”

- ❑ Or as John Ruskin puts it:



“It's unwise to pay too much, but it's worse to pay too little. When you pay too much, you lose a little money - that's all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing it was bought to do. The common law of business balance prohibits paying a little and getting a lot - it can't be done. If you deal with the lowest bidder, it is well to add something for the risk you run, and if you do that you will have enough to pay for something better.”

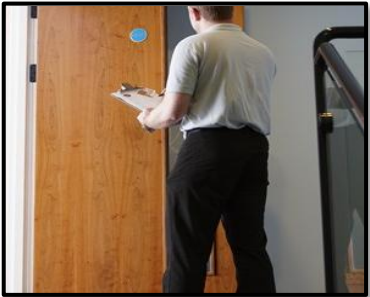
Get it right

- ❑ Get RegAI sign-off for the door hardware specification



- ❑ Get qualified installers to fit fire doors e.g. FIRAS; BM TRADA Q Mark; LPCB

- ❑ Get qualified advice for any retro-fit suggestions – from RegAI



- ❑ Train staff for DipFD, and use FDIS Inspectors for a periodic health check

Pay off – safer buildings for residents *and* fire fighters.

Helpful contacts

- ❑ Registered Architectural Ironmongers –
www.gai.org.uk

- ❑ Diploma in Fire Doors, and Fire Door Inspectors
www.fdis.co.uk

- ❑ Qualified installers:
 - FIRAS
www.warringtoncertification.com/firas.html
 - BM TRADA Q Mark –
www.chilternfire.co.uk
 - LPCB -
www.redbooklive.com/pdfdocs/RedBookVolume1Intro.pdf

- ❑ Passive Fire Protection – specification guides
 - PFPF
http://pfpf.org/best_practice.htm