



Opening Doors to the Future

OPENING DOORS TO THE FUTURE

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DOORS AND COMPLIANCE

Keep it simple – what are doors for?

To get in and out of buildings or rooms.

Functions of a door:

- Access
 - Egress – during day-to-day activities
 - Egress – evacuation
 - Security
- 

DOORS AND COMPLIANCE

Are MAINTENANCE and COMPLIANCE the same thing?

Maintenance – does the door work as intended – does the hardware fitted to the door function correctly?

? Fire and/or Smoke doors – is maintenance part of compliance? ?



DOORS AND COMPLIANCE

Door compliance is based around **evacuation** and safety.

Part 1: Evacuation in event of an **emergency** – ensure occupants can safely and easily leave the building.

What is an Emergency?

Based on the Building Act which is structured around FIRE and EARTHQUAKES.

DOORS AND COMPLIANCE

Building Act 2004

3 Purposes

This Act has the following purposes:

(a) to provide for the regulation of building work, the establishment of a licensing regime for building practitioners, and the setting of performance standards for buildings to ensure that—

(i) people who use buildings can do so safely and without endangering their health; and
(ii) buildings have attributes that contribute appropriately to the health, physical independence, and well-being of the people who use them; and

(iii) people who use a building can escape from the building if it is on fire; and

(iv) buildings are designed, constructed, and able to be used in ways that promote sustainable development:

(b) to promote the accountability of owners, designers, builders, and building consent authorities who have responsibilities for ensuring that building work complies with the building code.

DOORS AND COMPLIANCE

Door compliance is based around evacuation and safety.

Evacuation in event of an **emergency** – ensure occupants can safely and easily leave the building.

What is an Emergency?

Based on the Building Act which is structured around FIRE and EARTHQUAKES.

- ❖ Is an emergency being inadvertently stuck in a building or part of a building?

DOORS AND COMPLIANCE

Evacuation in event of an emergency – ensure **occupants** can safely and easily leave the building.

Who is an occupant?

Is compliance meant to cater for someone who is illegally on the premises?

NO

A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against the blue background.

DOORS AND COMPLIANCE

Door compliance is based around evacuation and **safety**.



Part 2: Safety – users won't get injured in the normal course of operation of the door

DOORS AND COMPLIANCE

SS3 = **Electromechanical** Doors (& Windows)

Electromechanical = automation or reliance on an electronic component to work as intended.

❖ Not manual operation

- SS3/1 automatic doors
- SS3/2 egress controlled doors
- SS3/3 interfaced fire or smoke doors

SS 3/1 AUTOMATIC DOORS

What is an automatic door?

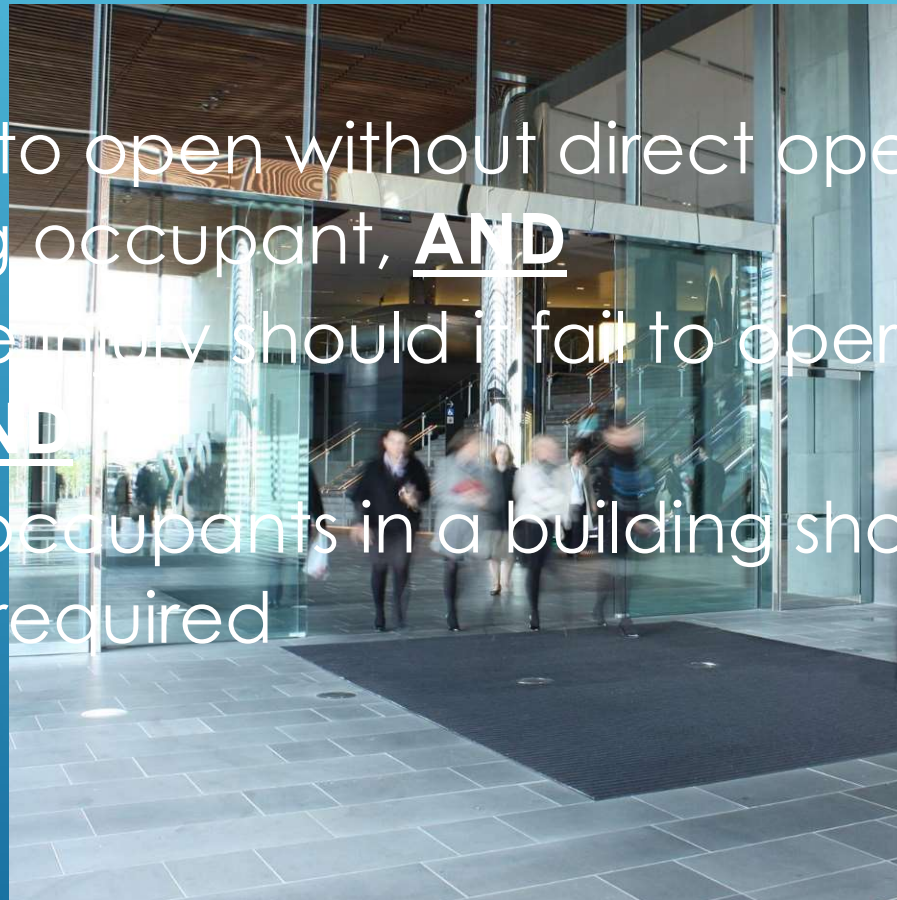
Compliance Schedule Handbook:

- is designed to open without direct operation from any building occupant, **AND**
- could cause injury should they fail to operate as required, **AND**
- could trap occupants in a building should it fail to operate as required

SS 3/1 AUTOMATIC DOORS

Automatic sliding door

- is designed to open without direct operation from any building occupant, **AND**
- could cause injury should it fail to operate as required, **AND**
- could trap occupants in a building should it fail to operate as required



SS 3/1 AUTOMATIC DOORS

Automatic revolving door

- is designed to open without direct operation from any building occupant, **AND**
- could cause injury should it fail to operate as required, **AND**
- could trap occupants in a building should it fail to operate as required



SS 3/1 AUTOMATIC DOORS

Automatic swing door?



Is designed to open without direct operation from any building occupant.

Could it cause injury should it fail to operate as required?

Could it trap occupants in a building should it fail to operate as required?

SS 3/1 AUTOMATIC DOORS

What is a compliant automatic door?

- 1) In an emergency, can occupants get out under normal conditions?
- 2) In an emergency, can occupants get out in a power fail scenario?
- 3) Do the **Evacuation and safety** safety functions/ safety devices of the door work?
- 4) Is the door sound (glass is not going to break / door is not going to fall over / operator is not going to fall off the wall)?

SS 3/2 EGRESS CONTROL DOORS

What is an egress controlled door?

Compliance Schedule Handbook:

- has a security control measure installed on or as a part of it, **AND**
- could trap occupants in a building should it fail to operate as required

SS 3/2 EGRESS CONTROL DOORS

Not access control doors.

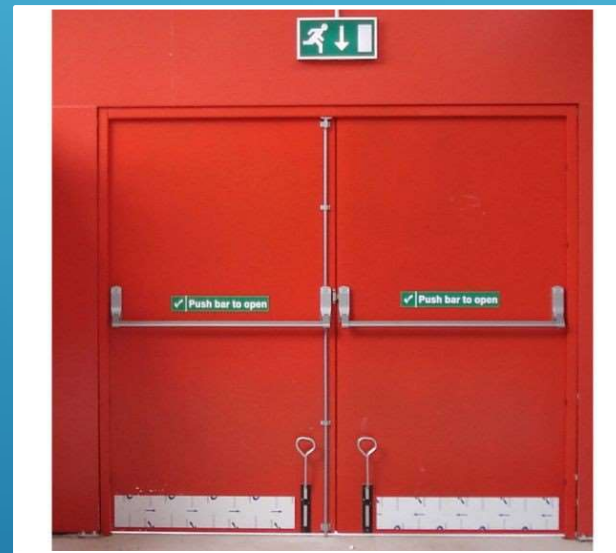
ACCESS control is about security –
getting into the building;

EGRESS control is about getting out of
the building.



SS 3/2 EGRESS CONTROL DOORS

Electromechanical – not mechanical.



SS 3/2 EGRESS CONTROL DOORS

Electromechanical locking device.



Maglock

V'lock



Electric strike

SS 3/2 EGRESS CONTROL DOORS

Not free egress doors.

- Yes – they have a security control measure installed on them

But -

- could they trap occupants in a building should they fail to operate as required?

SS 3/2 EGRESS CONTROL DOORS

Not doors that aren't a designated EXIT.

- Yes – it has a security control measure installed on it

But -

- could it trap occupants in a building should it fail to operate?



Only those doors that are on egress routes that could trap occupants should they fail to operate as required.

SS 3/2 EGRESS CONTROL DOORS

What is a compliant egress control door?

ABC produced the Code of Practice for Emergency Mechanical Controlled Locking Devices on Doors

- 1) fail-safe – if it was to fail, will fail and leave door unlocked
- 2) in an emergency, the Emergency Door Release (EDR) will unlock the lock and allow the door to be opened



SS 3/3 INTERFACED FIRE OR SMOKE DOORS

What is an interfaced door?

Compliance Schedule Handbook:

- Is designed to open or close on activation of the building emergency warning system or detection device

Generally – fire or smoke doors help open by electro-mechanical hold open devices



SS 3/3 INTERFACED FIRE OR SMOKE DOORS

- ❖ Are Maintenance and Compliance the same thing?



A door service provider can check the doors as scheduled maintenance (closes, latches, etc) but can't check the interface.

FIRE OR SMOKE

Just because a door is labeled "Exit" doesn't necessarily mean it's the same thing?

❖ Are maintenance

A door service pro
scheduled maintenance
as compliant as the

Does the compliance inspector check the doors for maintenance – adjust closer speeds, tighten hinges... (ladder, toolbelt).




FIRE SLIDERS

- ▶ What is a fire slider?
- ▶ connected to the door
- ▶ event of fire
- ▶ some of the devices
- ▶ fusible link (fusible link)
- ▶ is not
- ▶ is not
- ▶ thereto



- in the
shut
open
link

GREY AREAS # 1


- ? Should a fusible link fire slider be checked and signed off as a specified system? ?
- ❖ if yes, where? (and who by?)
- 

GREY AREAS # 2

Should an automatic door be listed on the Compliance Schedule under SS3/2 as well as SS3/1?

NO

Even though the auto door is an egress controlled door, all the SS3/2 compliance checks are done as part of the SS3/1 compliance checks.

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GREY AREAS # 3

Frequency of inspections for an automatic door?

NZS4239 (1993) – doesn't clearly state any frequency.

Compliance Schedule Handbook says “as per manufacturers recommendations”.

Door that opens infrequently vs. door with very high foot traffic?



GREY AREAS # 4

An automatic door that is not a designated EXIT?


- Compliance is also based on safety to users
- Should this door also work as an EXIT in an emergency?



GREY AREAS # 5

Doors that were a specified system but are now 'decommissioned'?

Auto sliding door that is now a manual sliding door?

- “A manual sliding door is an acceptable egress door if the number of users (in an emergency) is less than 20”
 - Will it prevent anyone leaving the building in an emergency?
 - Will it injure anyone in the normal course of operation?
- 

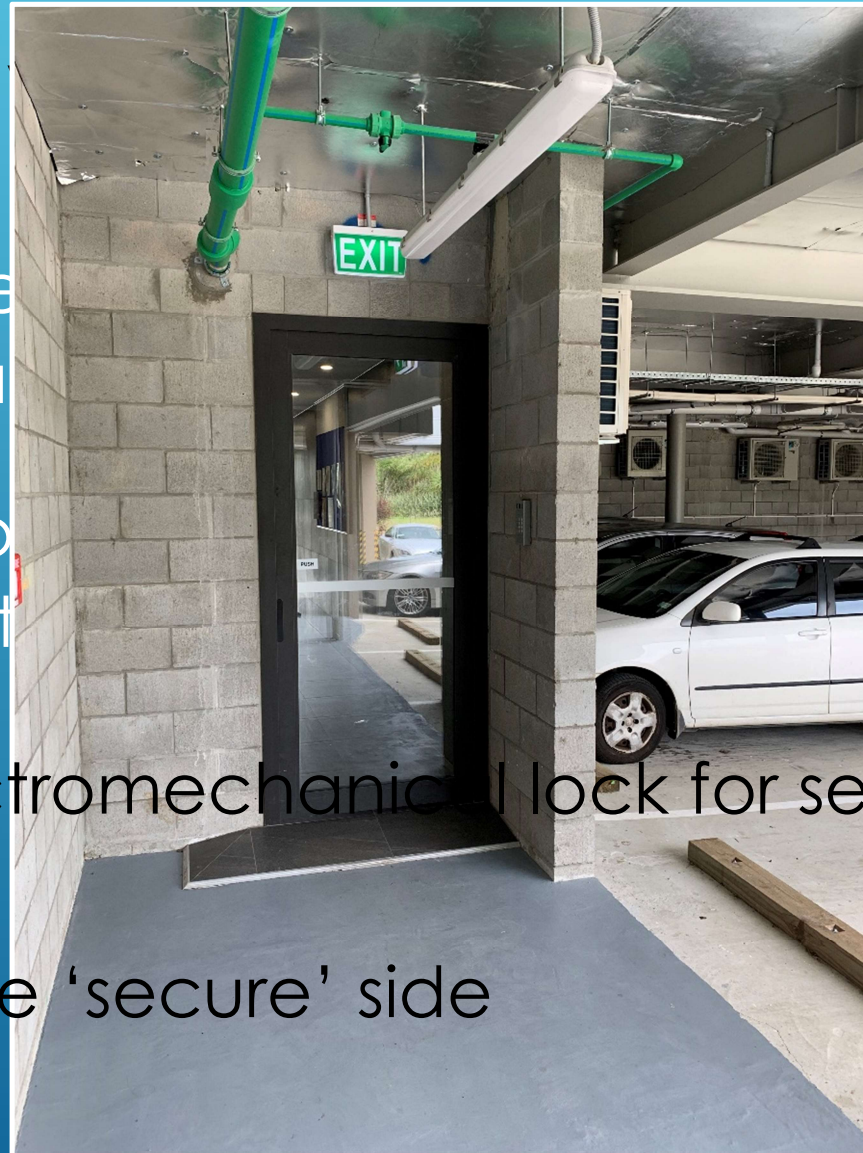
GREY AREAS # 6

Egress door –
building

Usually the de
secure carpa

Lift lobby door
emergency st

- ▶ has an electromechanical lock for security reasons
- ▶ EDR is on the 'secure' side



to the

closed /

e
cy.

GREY AREAS # 7

Motorised gates on an escape path?

Usually a vehicle gate securing a rear carpark area – but there is often an EXIT door from the building leading into that area.

- How does a pedestrian open a motorised gate in an emergency – especially if there is also a power failure?
- 

FUTURE # 1

Should a roller door be considered as a Specified System?

Door compliance is based around evacuation and safety.

Safety – currently no requirement to be inspected or maintained.

Is the most dangerous door in a building – and could seriously injure someone should it “fail to operate as required”.



FUTURE # 1

Should a roller door be considered as a Specified System?

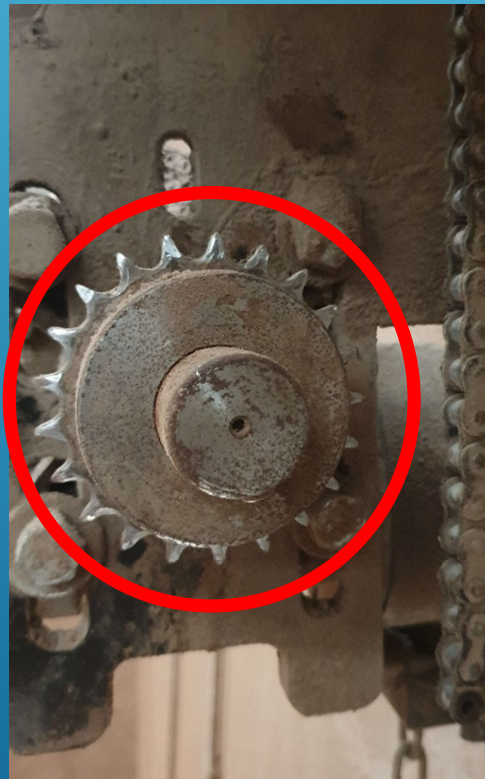


Broken spring 'tail' cutting into the shaft.



FUTURE # 1

Should a roller door be considered as a Specified System?



Teeth wearing on drive sprocket

—

if the drive chain slips off the sprocket, the door will drop.

FUTURE # 1

Should a roller door be considered as a Specified System?

Is a roller door on an EXIT path able to be considered as compliant?

- Shops
- Malls
- With UPS or battery back-up


Rapid rise doors / roller grilles / sectional doors ...

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FUTURE # 2


What do we want an automatic door that is interfaced with the fire alarm to do on activation of the alarm?

Some are designed to open as part of the fire / smoke control.

- During normal business hours
 - After hours (security?)
 - Should it open and stay open?
 - Should it just unlock?
 - Should it allow exit activation only?
- 


FUTURE # 3

What information do we want to see recorded on the Compliance Schedule?

- Auto door – are the brand / model / install date relevant?
 - Whether or not it is a designated EXIT?
 - Is it locking? – mechanical or electromechanical
 - Is it interfaced? If yes, why?
 - Location of door(s) – base building & tenancy
- 

FUTURE # 4

IQP Registration

- National Registration with consistency on registration requirements
 - Open book exam
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Opening Doors to the Future

Terry Dartnall

Questions later 😊