

HOW SAFE ARE OUR BUILDINGS?

Strategies for achieving safety compliance on existing buildings.

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INTRODUCTION

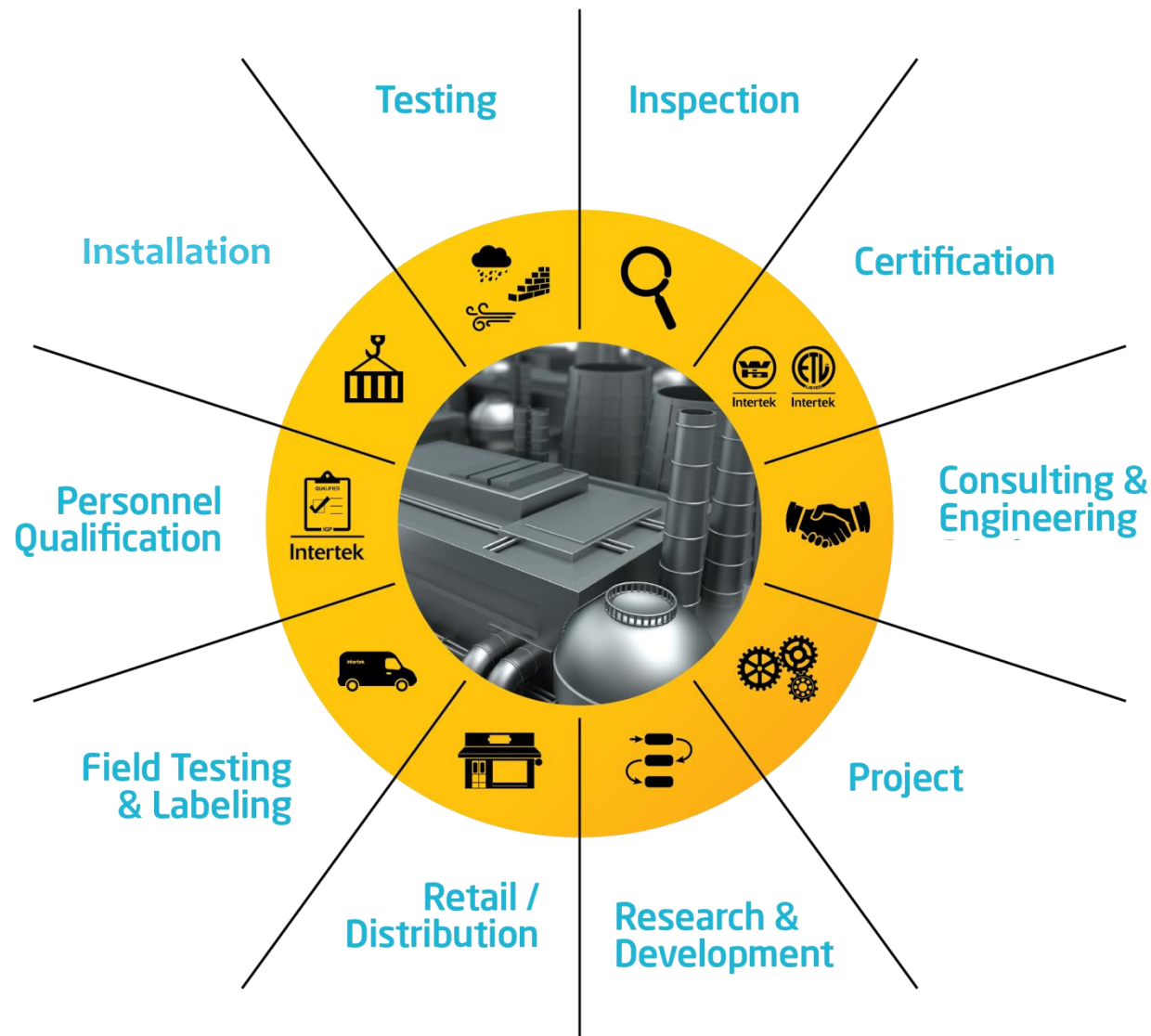


A COMPREHENSIVE APPROACH TO FIRE SAFETY



From the design stage, to the final inspection, active and passive fire protection solutions need to be considered.

Once a building is operational, **maintenance and regular inspections are key** to maintain the fire safety during the life span of the building.



02

RISKS ON EXISTING BUILDINGS



ACTUAL NUMBERS



NFPA statistics

Nearly 500K commercial fires in 4 years

Only 10% sprinkled

450k non sprinkled

Almost 30% spread beyond the room of origin

130,000 fires



Proactive regulators, facility and company managers seeking to minimize losses from fire must take preventative action to minimize the effects of fire on life safety and property damage.

Failure to properly inspect and maintain fire doors and other opening protectives could result in jeopardizing the safety of building occupants as well as property damage and liability claims in the event of fire.

03

INSPECTIONS





What is wrong here?



What is wrong here?



What is wrong here?





What is wrong here?





What is wrong here?

DOOR INSPECTIONS



COMMON ISSUES

Cracked glass → Decrease in performance.

Items that interfere or prohibit operation → Reduce or eliminate fire containment.

Excessive door clearance → In latch side, reduces latch engagement with the consequent potential decrease in its ability to keep the door closed in the event of fire. On all edges, if **intumescent edge seals** are required, these products may fail to completely fill the gap so flame penetration may occur.

Lack of intumescent gasket → Decrease in performance.

Smoke and draft gaskets → Increase the amount of leaking smoke that may injure building occupants that remain in the building or are trying to evacuate.

Damaged leaves → Premature degradation, spread of fire.

Malfunctioning hardware (latches, closing devices...) → Reduce or eliminate fire containment.

Locked emergency exit doors → !!!!!

FIRE CONTAINMENT AND SAFE EGRESS OF OCCUPANTS

FIRE DOOR INSPECTIONS



NFPA 80: Standard for fire doors and other opening protectives

2007 first edition. 2019 latest.

Differentiates between type of construction (steel, wooden, glazed...) and operational mode (sliding, pivoting...)

Visual Inspections:

Emphasis on the entire opening protective (leaf, frame and hardware).

Certification labels are checked (visible and legible).

Verification of the overall condition of the assembly (no holes, breaks or missing parts).

Door to frame clearances.

Operational tests:

Hardware performs as intended.

Overall operation of the assembly.

These visual inspections and operational tests are meant to ensure that the opening protective is in good working order and that it will not compromise the safety in the event of a fire.

FIRE DOOR INSPECTIONS



NFPA 80: Standard for fire doors and other opening protectives

When?

Annually

Who?

Inspection and tests to be carried out by a qualified person, defined as *“A person who, by possession of a recognized degree, certificate, professional standing, or skill, who, by knowledge, training and experience has demonstrated the ability to deal with this subject matter, the work, or the project”*. Impartial 3rd party always best. Programs such as FDAI, FDIS, DHI-IQP...

Where?

Any and all doors that play a role in the fire safety of a building. High occupancy, high risk buildings, such as **hospitals, schools, malls, high-rise buildings**, etc.

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FIELD LABELLING



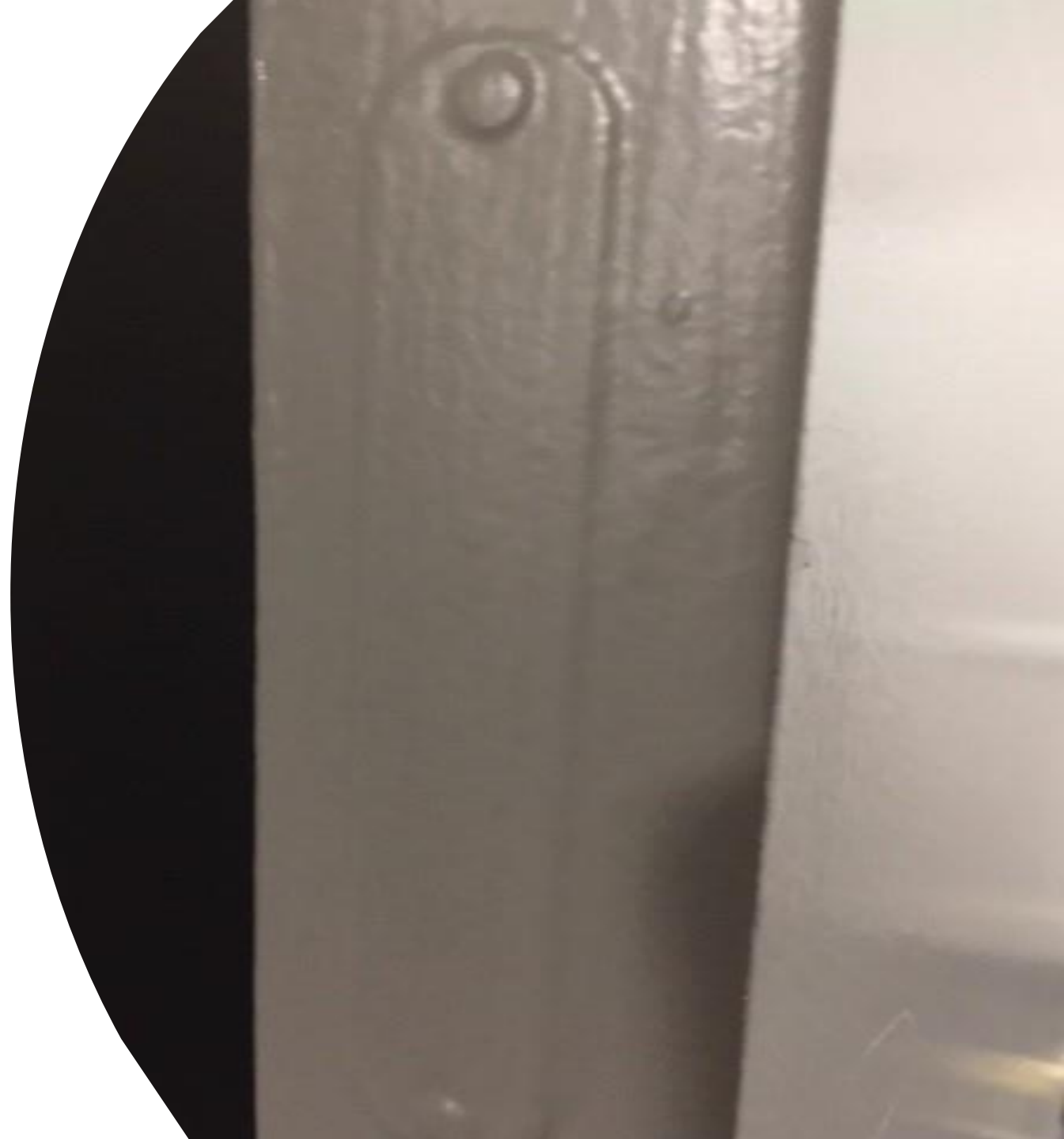
FIELD LABELLING

NFPA 80: Standard for fire doors and other opening protectives

Application of labels on site.

May become necessary for a variety of reasons:

- ❖ Field modifications
- ❖ Doors leaving factories without labels
- ❖ Incorrect labelling
- ❖ Labelling that has been painted over, damaged or removed.



FIELD LABELLING

Manufacturers work with their certification body to **ensure all their opening protectives are labelled prior to being installed**. However, when a product is found on site that is not correctly labelled, the certification body has the knowledge to properly re-label these doors when appropriate.

“Field labelling shall be performed by the listing agency that maintains periodic inspections of production of the labelled materials under review”.

Assurance that the body conducting the field labelling service has an **in-depth knowledge** of the doors and frames being labelled and that the field inspector has **access to the supporting documentation** to correctly identify and address any field modifications and properly relabel the opening protective.

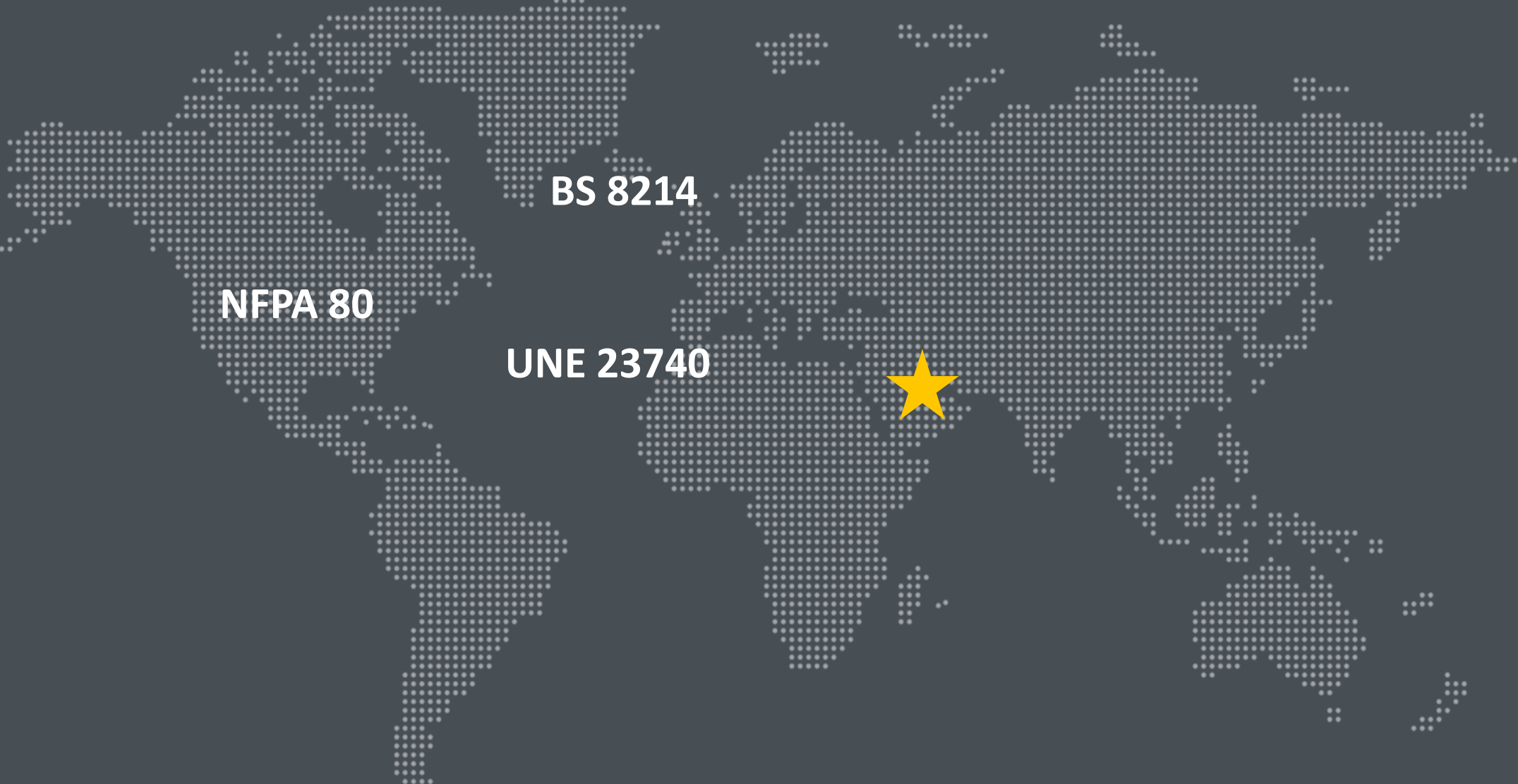


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CONCLUSION



MARKET TRENDS



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Thank you



intertek

Total Quality. Assured.