

Understanding CDM

What do we need to know?

IStructE Small Practitioners Conference

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The questions we are going to address today

- The context for CDM 2015
 - What do we mean by a health and safety offence?
 - Where has HSE taken enforcement action?
 - What are the implications of getting it wrong?
- Understanding CDM 2015
 - What do we need to understand about our responsibilities?
 - What do we need to understand about Regulation 9?
 - What if we need to take on the Principal Designer role?

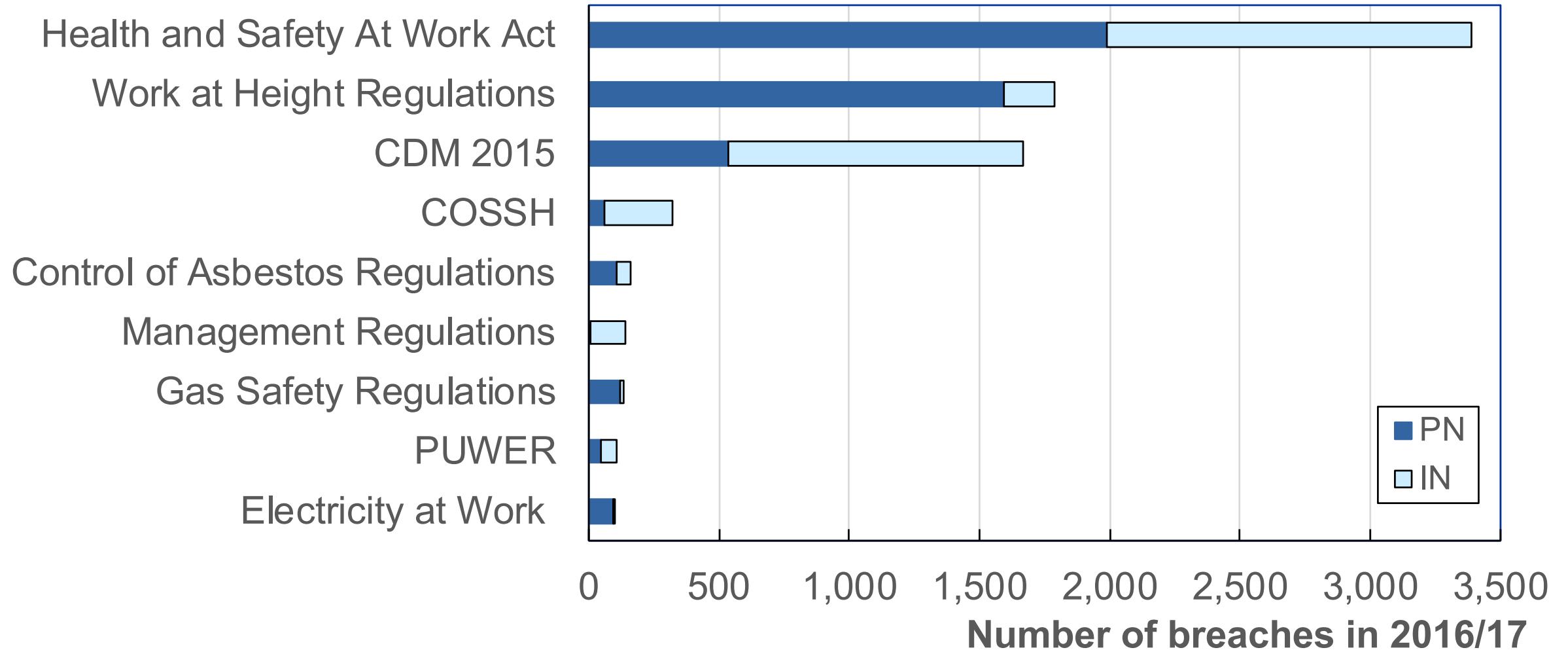
What do we mean by a health & safety offence?

Health and safety offences ...

- Are concerned with failures to manage risks to health and safety
- They don't require proof that the offence caused any actual harm
- The offence is in creating a risk of harm

Where has HSE taken enforcement action?

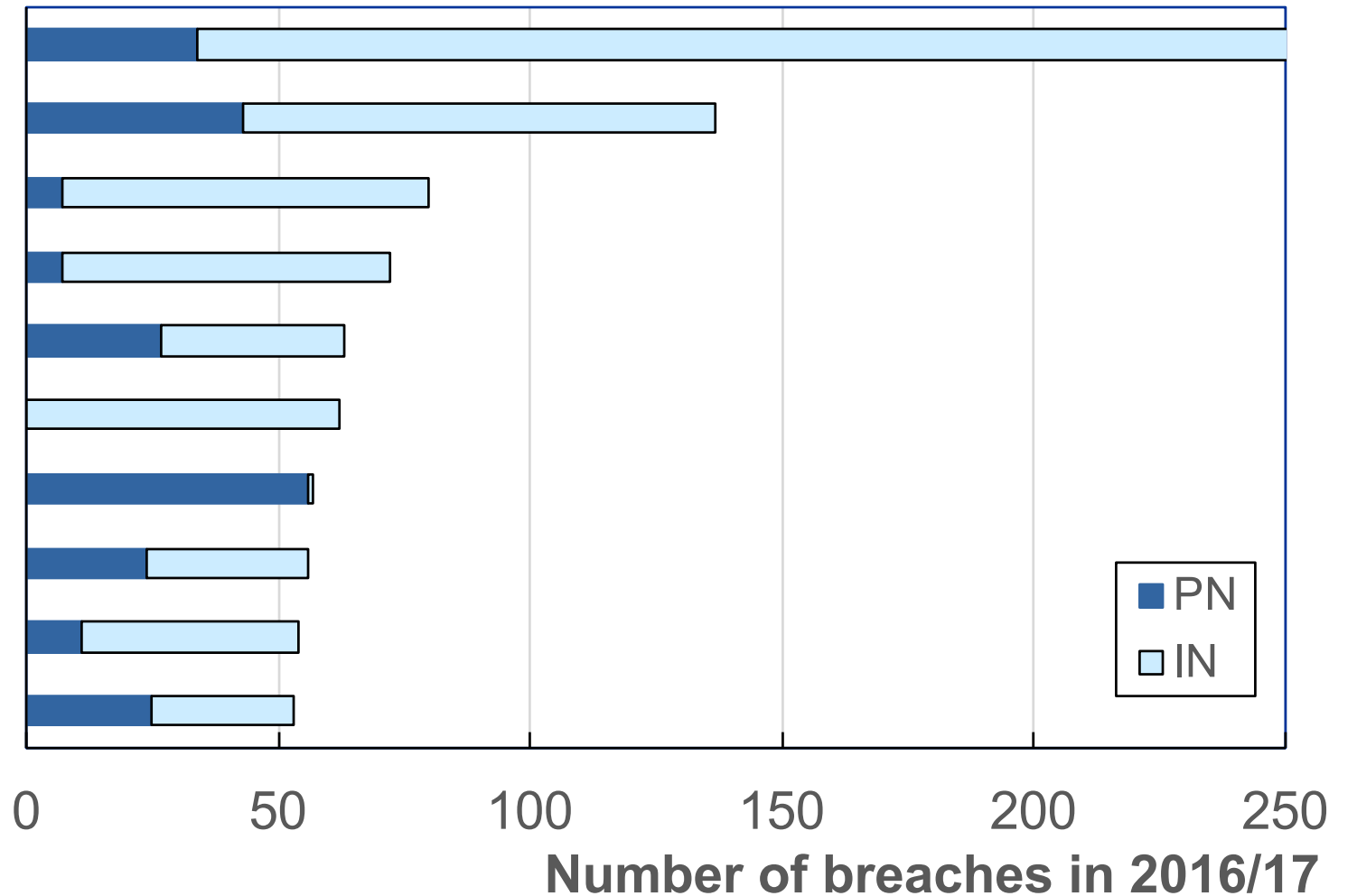
HSE issued enforcement notices most frequently for breaches of three acts or regulations



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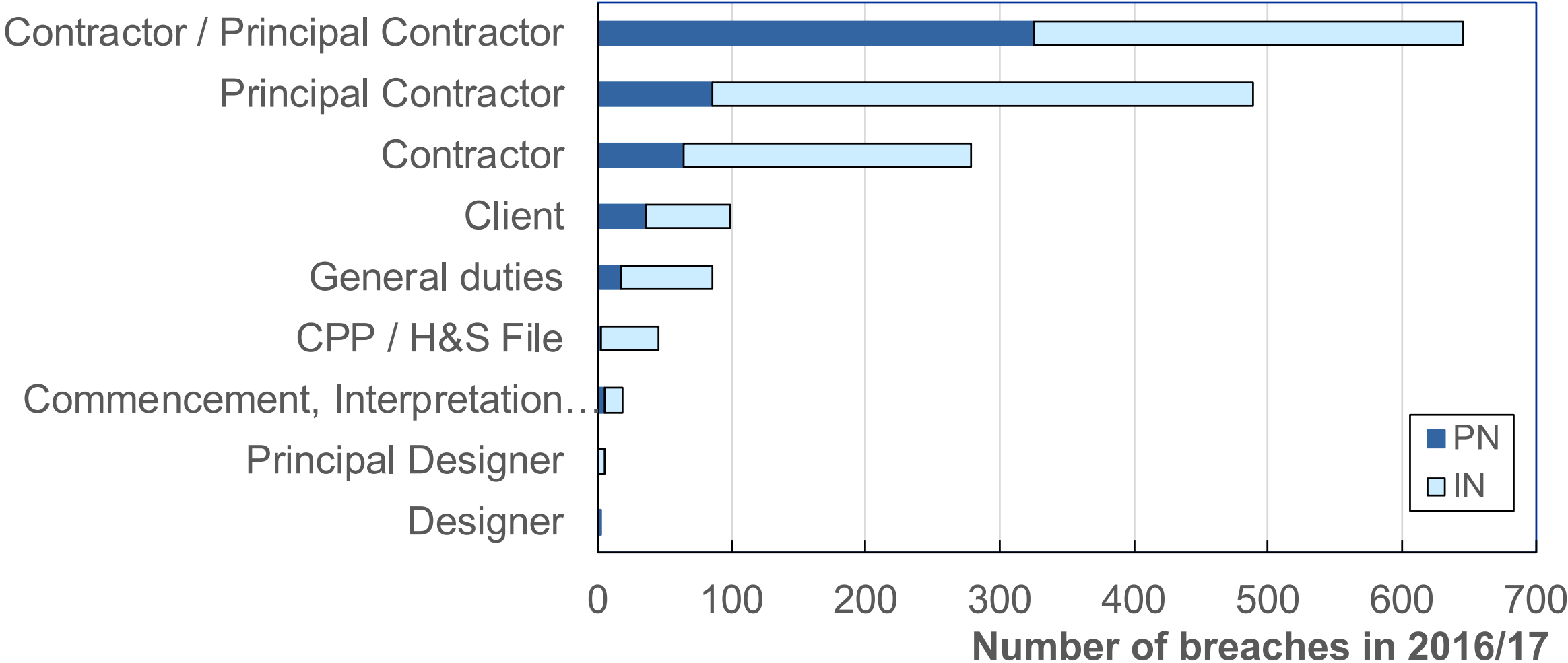
Enforcement notices were issued most frequently for breaches of Contactor and PC duties in CDM 2015

- 13 - Principal Contractor Duties
 - 13(1) - PC to P, M, M & C
 - 15(7) - Worker SKET
 - 13(4) - PC inductions etc.
 - 15(2) - Contractor P, M & M
 - 15(11) - Contractor Schedule 2
 - 22(1) - Excavation collapse
 - 15 - Contractor Duties
 - 8(1) - Organisation SKE
 - 16 - Application of Part 4



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Very few enforcement notices were issued for Designer & PD duties in 2016/17



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What are the implications of getting it wrong?

Sentences for getting it wrong went up in 2016 with the introduction of the new Sentencing Guidelines

- Sentences *sufficiently substantial to have a real economic impact which will bring home to both management and shareholders the need to comply with health and safety legislation*
- Sentences based on Culpability, Harm (Risk) and Turnover
- Large fines for companies:
 - Largest fine rose from £1m to £2.6m in first year
 - Medium-sized companies now getting fines that only large companies got in past
- Low threshold for custodial sentences for individuals (Site Managers and Directors)
 - Custodial sentences up from 1 in 3 to nearly 1 in 2

A typical construction case would be medium culpability and harm category 1 or 2

Harm	Range value for organisation annual turnover of			
	Micro (<£2m)	Small (£2m-10m)	Medium (£10m-50m)	Large (>£50m)
HC1	£60k - £160k	£100k - £600k	£300k - £1.3m	£800k - £3.25m
HC2	£14k - £70k	£25k - £230k	£100k - £600k	£300k - £1.5m

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Medium culpability: Systems were in place but these were not sufficiently adhered to or implemented

Harm category 1: High likelihood & High severity

Harm category 2: Medium likelihood & High severity OR High likelihood & Medium severity

The first PD received a sentence in May 2018

- Concern raised about lack of H&S controls at large timber frame extension to Residential Home
- HSE inspectors visited the site and found numerous H&S breaches:
 - Risks included falls from height, fire, slips and trips and poorly controlled wood dust
 - Risk of fire spread associated with timber frame extension adjoining existing building
 - 80 physically / mentally impaired residents put at risk due to possibility of fire spread
- Architects alleged to have failed to perform their duties as PD and failed to consider the risk of fire spread to the vulnerable residents
 - Pleaded guilty to breaching Regulation 11(1) and 11(3) of CDM 2015
 - Fined £20,000 and ordered to pay costs of £6,039
 - PC found guilty (in absence) of breaching HASWA Section 2(1) and 3(1), fined £150,000 and ordered to pay costs of £6,039

What do we need to understand about our responsibilities?

CDM isn't the only responsibility designers have ...

- As an organisation
 - Health and Safety at Work Act
 - s3 '*Risk to non-employees*'
 - Corporate Manslaughter Act
 - CDM 2015 (Reg 9)
 - Management of Health and Safety at Work Act
 - Duty of care to others under common law
 - Contractual
- As an individual
 - Health and Safety at Work Act
 - s7 '*Take reasonable care for H&S of himself & others*'
 - s37 '*Director's duties*'
 - Gross negligence manslaughter
 - CDM 2015 (Reg 9)
 - Duty of care to others under common law
 - To employer

Understanding what HSE wants from CDM

- Requirements for managing risk on construction projects
 - Integrate H&S into project management
 - A project is more than a construction site
- Standards to be achieved
 - But not how to achieve them
- A flexible framework
 - Approach to compliance will vary
 - In proportion to project risk and complexity (**but, beware risk does not respect project size**)

What do we need to understand about CDM 2015 Regulation 9?

CDM 2015 Regulation 9 – Duties of Designers

(1) A designer must not commence work in relation to a project unless satisfied that the client is aware of the duties owed by the client under these Regulations.

(2) When preparing or modifying a design the designer must take into account the general principles of prevention and any pre-construction information to eliminate, so far as is reasonably practicable, foreseeable risks to the health or safety of any person—

(a) carrying out or liable to be affected by construction work;

(b) maintaining or cleaning a structure; or

(c) using a structure designed as a workplace.

(3) If it is not possible to eliminate these risks, the designer must, so far as is reasonably practicable—

(a) take steps to reduce or, if that is not possible, control the risks through the subsequent design process;

(b) provide information about those risks to the principal designer; and

(c) ensure appropriate information is included in the health and safety file.

(4) A designer must take all reasonable steps to provide, with the design, sufficient information about the design, construction or maintenance of the structure, to adequately assist the client, other designers and contractors to comply with their duties under these Regulations.

What Regulation 9 means in practice – 3 principles

1. Designs shall be safe to construct, maintain, operate and de-commission
 - Designers may assume that these activities will be undertaken by competent people who will be able to manage normal construction / operational / repair risk arising from the design
2. Designs shall comply with contemporary industry practice as regards health and safety
 - Unless there is good reason for not complying
3. Information on significant residual risks shall be communicated to those who need to know

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Elimination and reduction of risk

- Most design decisions occurring during a typical project will result in **‘standard work tasks’** ...
 - Standard for Designers, Contractors, operators, maintainers, etc.
 - Common construction processes having accepted contemporary solutions
 - Not risk free, but risks are well known and industry has accepted methods
 - No action required by Designer other than to record an area as ‘standard’
- ... but there will be tasks that are **‘non-standard’**
 - Would be difficult to use or adapt contemporary industry practice
 - Or, where none exists or would apply
 - This is where the effort is required

What could make something 'non-standard'

- In-situ concrete frame
 - Lack of access to construct using normal methods
 - Temporary instability issues
 - Slabs unable to take predictable temporary loads during construction

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Useful guides on contemporary design practice (Free)

- HSE / CITB: *Industry guidance for designers*
<https://www.citb.co.uk/documents/cdm%20regs/2015/cdm-2015-designers-interactive.pdf>
- Crossrail: *Healthy by Design* https://learninglegacy.crossrail.co.uk/wp-content/uploads/2016/01/HS35_HealthyByDesign-Web-Version.pdf
- ICE: *Designing for health – Guidance for designers* <https://www.ice.org.uk/knowledge-and-resources/briefing-sheet/designed-for-health>
- CIRIA: *Structural stability of buildings during refurbishment*
https://www.ciria.org/Resources/Free_publications/Structural_stability_on_site.aspx
- Highways England: *IAN 69/15 Designing for maintenance*
http://www.standardsforhighways.co.uk/ha/standards/ians/pdfs/ian69_15.pdf
- Temporary Works Forum: *Stability of reinforcing cages prior to concreting*
https://www.twforum.org.uk/media/41823/twf13_stabilityofreinforcement_v8__22_jan.pdf
- Structural-Safety: *CROSS reports* <https://www.structural-safety.org>

Useful guides on contemporary design practice (Priced)

- CIRIA: Safe access for maintenance and repair – Guidance for designers
- CIRIA: CDM 2015 – Construction work sector guidance for designers (C755)
- CIRIA: CDM 2015 – Workplace 'in-use' guidance for designers (C765)
- The Concrete Centre: Designing for safer concrete structures

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Include information on any associated ‘significant risks’ which could impact on Contractors or other Designers

- Significant risks, not high risks:
 - Not likely to be obvious to a capable Designer or Contractor
 - Unusual
 - Likely to be difficult to manage effectively
- Assumed construction sequence(s)
- Unusual loadings arrangements / centre of gravity of precast elements
- Known unstable conditions during construction, etc.
- *If I were working for the Contractor, would I be happy with this info?*

ERIC, an easy way to remember your duties

- **E**liminate
 - Can the identified risk be eliminated so far as reasonably practicable?; if not
- **R**educe
 - Can the identified risk be reduced so far as reasonably practicable?
- **I**nform
 - Pass on details of significant residual risks to those who need to know (Client, other Designers, Contractors)
- **C**ontrol
 - Typically done by others, but providing a construction sequence is helpful

What if we need to take on the Principal Designer role?

Acting as PD – what do you have to do?

- Assist the Client in identifying, obtaining and collating the pre-construction information
- Provide pre-construction information to Designers, the Principal Contractor and Contractors
- Ensure that Designers comply with their duties and co-operate with each other
- Liaise with the Principal Contractor for the duration of the appointment
- Prepare the Health and Safety file (possible handover to PC)

Acting as PD – what documentation do you need?

- Client brief
- Resource schedule and associated fee (charge a reasonable fee for the role of principal designer)
- Pre-construction information
- Design ‘significant residual risk’ schedules (APS provide a template)
- Health and Safety File

Acting as PD – avoiding some of the potential pitfalls

- Get a clear written agreement when the PD role has concluded
 - Could be Planning, Building Regulations or Tender stage for Domestic
- Write to confirm that the PD role has finished and another PD should be appointed if design work is continuing during the Construction Phase
- Keep a written diary / file notes for the project
- Maintain regular contact and liaison with all designers and others as required – convene meetings and issue minutes
- Keep a Risk Register (APS provide a template)
- Ensure the Pre-Construction Information is adequate (CDM 2007 Appendix 2 provides more information than CDM 2015)

In summary, keep it simple ...

- Need for coordinated design risk management
 - Eliminating / reducing risks or pointing out significant residual risks
 - Information flow (both H&S and technical)
- Focus on outcomes not complex forms and procedures
 - Express the H&S information in a clear way that others will understand
- Provide information on the need for temporary works or an assumed method of construction
 - May be obvious to the permanent works designer, but may not be so obvious to others

Thanks for listening – Any questions?

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