13th July 2023 (postponed from 27th June 2023)

Opening statement to Oireachtas Joint Committee on Housing, Local Government and Heritage

Defective Block Scheme regulations and review of IS 465

Chairperson, Deputies and Senators,

Thank you for the invitation to give evidence to your Committee on the operation of the Defective Concrete Block Scheme. My name is Damien Owens, and I am Director General of Engineers Ireland and a Chartered Engineer. I would like to introduce Keelan Keogh, Policy Officer, also a Chartered Engineer.

Engineers Ireland is one of the oldest and largest representative bodies on the island of Ireland, with over 25,000 members of which over 9,000 are Chartered Engineers. This membership incorporates all disciplines of the engineering profession in Ireland: in consulting and contracting organisations, the public sector, semi-state bodies and educational institutes. Public surveys indicate that 92% of the public place a high level of trust in engineers.

Engineers Ireland awards the professional title, Chartered Engineer (CEng MIEI) in line with the Institution of Civil Engineers of Ireland (Charter Amendment) Act 1969.
The registered professional title is recognised internationally and under Irish Law. According to the Building Control (Amendment) Regulations (SI 9 of 2014 & Code of Practice) [henceforth BC(A)R], Chartered Engineers are one of the three professions which may act as Assigned Certifiers. Engineers Ireland has also established and maintains registers of suitable qualified persons in specialist areas including:

- IS 398 Pyrite Assessment and Remediation
- Historical Landfill (Code of Practice: Environmental Risk Assessment for Unregulated
- Waste Disposal Sites (EPA, 2007).
- IS 465 Mica and Pyrite

Our members contribute to the development of national standards and policies with consultative groups across industry. The views presented here combine the views of many of the practitioner Chartered Engineers on the IS 465 register maintained by Engineers Ireland.

I.S. 465 - The Role of the Engineer on I.S. 465 Register

The role of the registrant, an engineer on the I.S. 465 register, as set out, is purely to prescribe/oversee testing and provide guidance on appropriate remedial works.

The background to the role of the registrant engineer was presented to this committee during 2022, together with the feedback at that time from IS 465 registrant engineers, and in the interest of time, will not be re-presented here. Engineers Ireland has not received any funding for the establishment and maintenance of the IS 465 register of engineers (competent persons).

Feedback from Registrants – June 2023

Since the inception of the IS 465 register Engineers Ireland has previously provided feedback based on the experience on the operation of the Defective Concrete Blocks Scheme. The most recent request for feedback from registrant engineers has highlighted a number of areas which are a continuing source of concern including:

Insurance Risk

To date Engineers Ireland has delivered six courses on the IS 465 standard for potential registrants over a three-year period to a total of 103 engineers. Today, the IS 465 register has 32 registrants – a figure that has not changed appreciably during the last three years. There are a number of reasons for the reluctance of engineers to join the IS 465 register - the key factor is the risk profile of the scheme.

Registrants report difficulty in obtaining Professional Indemnity (PI) Insurance without which an engineer cannot practice. Though PI insurance has become increasingly difficult/expensive to obtain, many registrants also report exclusions to the effect:

> **P. Absolute Pyrite &/or MICA Exclusion**
>
> This policy shall not cover any **Claim** or **Defence Costs**:
> arising out of, based upon or attributable to:
>
> the use, specification, testing, remediation, removal or exposure to Pyrite or MICA or materials or products containing Pyrite or MICA whether or not there is another cause of loss which may have contributed concurrently or in any sequence to a loss.

The lack of Professional Indemnity Insurance cover is especially acute for remediation options 2-5. The PI underwriters are unwilling to take the risk of the PI policy being called on if there are claims resulting from cracking of retained blockwork in the future.

Insurers see the risk being entirely and unfairly taken by the engineer who carries out the remediation works, and they believe that the residual risk of retaining blocks combined with the number of houses affected, is too great for them to take on.
The implications of the restrictions of PI insurance cover extends to potentially stifling innovation in the sector. I am aware of at least one company that has developed a novel solution for remediation which reduces the time and cost of remediation. However, the company is unwilling to deploy the solution at scale due to potential insurance liability issues. Innovative solutions which can rapidly address a homeowner's remediation may therefore not be deployed and any savings to the State will not accrue.

Process of deterioration

Our understanding of the process of deterioration of defective concrete blocks continues to evolve. A recent online event hosted by Engineers Ireland provided an insight into these developments.
https://www.engineersireland.ie/Engineers-Journal/News/deleterious-material-in-concrete-masonry-units-sharing-the-knowledge-1

Some engineers are of the opinion that IS465 is not fit for purpose as long as it does not consider sulphide oxidation in Donegal defective blockwork and the standard should be updated based on available research. Updated guidance on acceptable thresholds for free mica and sulphide levels should be provided.

Almost ten years have passed since the defective concrete problem was raised with the Department of the Environment, Community and Local Government (Expert Panel terms of reference 2015). Dwellings as far back as 1994 have been found to have muscovite mica and pyrrhotite (equivalent total sulphur levels above allowable limits). There is still much debate about the cause(s) of the problem. It is imperative that meaningful research is carried out, given the scale of the problem which may have implications far beyond the counties already recognised as having defective concrete block problems. Research into the causes of deterioration has only just commenced. There will remain a lack of data for a considerable time going forward, thus conservative approaches in any remediation proposal may prevail. The scheme will have to have flexibility to incorporate new findings as they arise.

One such example of flexibility is that engineers have observed cases where homeowners who have had to test their property for house sale, only to discover the blockwork is defective even though there is no visual damage. These homeowners should be included in the scheme. Criteria must be put in place to allow remediated properties to be sold and mortgaged. The operation of the Mundic scheme in the UK may provide an example of an enduring model to support commercial transactions of impacted properties.

Operational Considerations

Some operational matters of the proposed scheme could improve the effective operation of the scheme. For example:

- Engineers are concerned that the process for approval of interim payments at Stage 3 will be very slow and unwieldy as currently envisaged. We would suggest that a certified payment approach should be adopted. This is the construction industry norm and is accepted by financial institutions, whereby the value of the completed works is certified by a Chartered Engineer, (or Registered Architect/Surveyor) and

payments are processed accordingly. In our opinion, slow processing of stage payments will discourage contractors from participating in the scheme and will ultimately inflate tender prices.

- Provision should be made to allow grant recipient to drawdown interim payments of fees to the Engineer designing the remedial works. In many cases engineers have been working on remedial works plans in excess of four months without any payment.
- The purpose of the threshold should be elaborated on and communicated proactively to homeowners to ensure homeowners do not inadvertently allow their property to deteriorate further due to reduced maintenance.
- The inclusion of estimates of engineer's costs for the building condition assessment report (€750) contained in the guidance documents may create an unrealistic impression of the cost with homeowners. This cost has to include travel, site survey, report writing and professional indemnity.

Conclusion

Engineers Ireland has worked with stakeholders to implement a register of experts for the implementation of IS 465 and provide feedback from registrants to enable continuous improvement.

Engineers Ireland has long advocated for stronger oversight of the sector. Based on current estimates the defective concrete block remediation scheme alone will cost the State in excess of €2 billion. The annual cost of providing 5-10 engineers within each Local Authority to provide inspections and oversight to construction projects would equate to a small percentage of this figure and help to prevent future failures in the sector.

We welcome the attention that the Committee is giving to the Remediation of Dwellings damaged by the Use of Defective Concrete Blocks Bill, and we look forward to working with the Committee, Government and other stakeholders towards an improved solution.

Thank you.