NIAIC

Northern Ireland Adverse Incident Centre

Department of Health
An Roinn Sláinte
Männystrie O Poustie
www.health-ni.gov.uk

Northern Ireland Safety Notice

Action

Reference: **NISN-2023-01** Issued: **03 July 2023**

Failure of Reinforced Autoclaved Aerated Concrete (RAAC) Planks

Summary

The Standing Committee on Structural Safety (SCOSS) issued an alert – "Failure of Reinforced Autoclaved Aerated Concrete (RAAC) Planks" in May 2019[1]. They advised that RAAC planks are much weaker than traditional concrete planks and are prone to degradation over time, resulting in a useful life estimated to be around 30 years. RAAC planks were used in the construction of many types of buildings during the 1960s to 80s and, as they are now past their expected service life, buildings containing RAAC can present a structural risk. Where RAAC planks are used in flat roofs (and floors of multi-storey buildings) there is the potential for collapse if action to mitigate / remediate is not taken.
This notice recommends actions on the identification, risk assessment, mitigation, monitoring, and replacement of RAAC planks. Further guidance is available from the Institute of Structural Engineers.[2]

Action

The following actions are aligned with advice in the SCOSS Alert:

1. Focus on buildings where construction work occurred 1960's to 1980's.

2. Review available construction information for these buildings;
   a. If a non-RAAC construction method is confirmed, no further action is required.
   b. Where this cannot be confirmed, a preliminary inspection / investigation should be carried out.

[1] Standing Committee on Structural Safety (SCOSS).
Failure of reinforced autoclaved aerated concrete (RAAC) planks (cross-safety.org)
[2] Institute of Structural Engineers (IStructE) – RAAC Guidance
Reinforced Autoclaved Aerated Concrete (RAAC) panels: Investigation and assessment - istructe.org
Reinforced Autoclaved Aerated Concrete (RAAC) Investigation and Assessment – Further Guidance - istructe.org

3. For buildings where preliminary inspection / investigation is required;
   a. If a non-RAAC construction method is confirmed, no further action is required.
   b. Where this cannot be confirmed, a further detailed inspection should be carried out.

4. For buildings where further detailed inspection is required;
   a. If a non-RAAC construction method is confirmed, no further action is required.
   b. If the presence of RAAC is confirmed, proceed to gather information, carry out risk assessment, and ensure that any required mitigation actions are implemented.

N.B. An appropriately experienced Chartered Structural Engineer or Chartered Building Surveyor familiar with RAAC should be appointed to conduct any further detailed inspections required. If RAAC is present, they should also carry out a risk assessment and provide advice and recommendations regarding any risk mitigation actions required.

Problem / background

In 2018 a flat roof of a school constructed using RAAC planks collapsed suddenly with little warning. Fortunately, this occurred at a weekend when the building was unoccupied. The collapse was attributed to RAAC planks older than 30 years.

Within the health estate in England investigations have identified RAAC in more than 30 hospitals and works are underway to address this risk. RAAC panels have also been identified in the health estates in Scotland and Wales.

Given the extensive use of this construction method in Great Britain it is recommended that an assessment of health buildings in NI is undertaken to determine if any RAAC planks are present, so that appropriate action can be taken.

Suggested onward Distribution

All staff with responsibility for the building maintenance and safety.

Enquires

Enquiries and adverse incident reports in Northern Ireland should be addressed to using the reference NISN-2023-01:

Northern Ireland Adverse Incident Centre
Medical Device and Estates Safety Policy Branch
Safety Strategy Unit, CMO Group
Department of Health
Room D1
Castle Buildings
Stormont Estate
Belfast
BT4 3SQ

Tel: 028 9052 3868
Email: niaic@health-ni.gov.uk
http://www.health-ni.gov.uk/niaic

Reporting adverse incidents in Northern Ireland
Please report directly to NIAIC using the forms on our website.