

THE INSTITUTION OF ENGINEERS, MALAYSIA

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The Institution of Engineers, Malaysia

PRESS STATEMENT

15 January 2026

COMPRESSOR EXPLOSION AT UNIVERSITY IN BUKIT DAMANSARA

The Institution of Engineers, Malaysia (IEM) is deeply saddened by the tragic compressor explosion at a university in Bukit Damansara on 12 January 2026 which resulted in a loss of life and injuries to several individuals. We extend our heartfelt condolences to the families of the deceased, and we pray for the swift recovery of those injured.

IEM stands with the relevant authorities in their investigation to determine the root cause of the incident and to identify areas for improvement with safety as the utmost priority.

At this stage IEM does not have access to the confirmed technical particulars of the equipment involved or its maintenance records. One of the recognised risk factors in modern refrigeration and air-conditioning systems relates to the use of newer classes of refrigerants which may carry flammability or toxicity characteristics depending on their classification and application. Such risks must however be formally assessed and verified through official investigation findings before any definitive conclusions are drawn.

Over the past decades refrigerants have evolved significantly. Earlier generations such as chlorofluorocarbons and hydrochlorofluorocarbons were progressively restricted due to their ozone depletion potential. Subsequent generations were identified to have global warming impact and are currently in the process of being phased down. The current generation of refrigerants is designed to be more environmentally sustainable but introduces new safety considerations that must be addressed through proper engineering controls.

Air-conditioning systems utilising these newer refrigerants require specific design, installation and maintenance practices to manage potential risks. IEM was a contributing member in the working committee responsible for the development of Malaysia Standard MS 2678:2017 *Flammable Refrigerant Systems – Code of Practice* as well as Malaysia Standard MS 1525:2019 *Energy Efficiency and Use of Renewable Energy for Non-Residential Buildings – Code of Practice*.

Based on publicly available incident imagery there was visible structural damage including brick wall and ceiling collapse. MS 2678 and MS 1525 provide engineering guidance on machinery room requirements including appropriate location, electrical installations, ignition source control, ventilation provisions, safety alarms and detectors, notices and inspection regimes. Where there is an identified risk of explosion machinery rooms should be suitably sited away from adjacent occupied areas.

These standards further prescribe requirements for operation, maintenance, repair and refrigerant recovery for systems using flammable refrigerants. Personnel performing such works must be adequately trained and certified to ensure competence in both technical skills and safety management.

IEM stands ready to offer its technical expertise and assistance to the Department of Occupational Safety and Health (DOSH), Fire and Rescue Department of Malaysia (JBPM), the Energy Commission and other relevant authorities in support of the ongoing investigation. We believe that a comprehensive root cause analysis is essential not only for accountability but also to derive lessons that will strengthen engineering governance and safety standards in equipment design, installation and maintenance practices nationwide.

We urge all engineering practitioners, building owners, site managers and industry stakeholders to treat this incident as a solemn reminder to review and reinforce safety management systems. Workplace safety is a collective responsibility and we must remain vigilant to ensure that every worker returns home safely and that surrounding areas are safe for the public.

Ir. Prof. Dr. Jeffrey Chiang Choong Luin
President
The Institution of Engineers, Malaysia (IEM)

*For further information on this Press Release or
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About the IEM

The Institution of Engineers of Malaysia (IEM) is a civil society organisation established to promote the science and profession of engineering in any of its disciplines and to facilitate the exchange of information and ideas related to engineering. Founded in 1959 and with a membership of over 40,000 today, IEM constitutes one of the largest professional organisations in the country. Amongst its many roles, the Institution plays an active part in supporting various sustainable socio-economic development of the country and in nation building. It represents the aspirations of its members, acts in the best interests of the public of whom its members serve whilst upholding the standing and image of the profession.