



#### MOM/OSHD/2024-10

To: All Manufacturers and Suppliers of formwork structures and scaffolds, and All Occupiers and Contractors involved with their use

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Joint Circular Issued by Ministry of Manpower (MOM) and The Singapore Contractors Association Ltd (SCAL)

# Traceability and Reusability of Formwork Structures and Scaffolds

Formwork structures and scaffolds consist of manufactured components. These systems and their components are often produced and engineered under patent by brandname manufacturers and are locally referred to as proprietary systems. There are also other "self-fabricated systems" being used in the industry.

- 2. Manufacturers of proprietary systems are generally able to provide systemic assurances of their products' quality, safety and reliability. However, maintaining the same level of assurances after prolonged use <sup>1</sup> can be challenging. Similarly, self-fabricated systems face comparable, if not greater, challenges as they are often less traceable and consist of mix-and-match components.
- 3. Coupled with the industry's push for sustainability through reuse, it is essential that formwork structures and scaffolds are robust, traceable and safe for reuse. This circular serves as a reminder to all relevant duty holders under the Workplace Safety and Health Act of their obligations to ensure materials<sup>2</sup> for formwork structures and scaffolds are sound, of good construction and adequate strength.

<sup>1</sup> "Use" and "Reuse" in the context of this circular refers to any or all of construction, erection, installation, repositioning, alteration, maintenance, repair and dismantling of formwork and shoring components.

<sup>&</sup>lt;sup>2</sup> Materials referred to in this circular include all elements primary and ancillary-to the complete system, including frames, modular members, tubes, braces, adjustable bases and u-heads, runners, walers, tie rods, anchors etc and any connectors and fittings.

# Responsibilities of Manufacturers and Suppliers <sup>3</sup> of Formwork Structures and Scaffolds

- 4. Manufacture or supply formwork structures and scaffolds that:
- a) Meet or exceed relevant Singapore Standards or other internationally recognised standards such as European Norm (EN) or International Organisation for Standardisation (ISO) standards;
- b) Undergo strict quality checks throughout the manufacturing process;
- c) Are tested for safety, performance, and compliance with relevant standards;
- d) Are marked, where reasonably practicable, for traceability so that they can be tracked through the supply chain and be quickly identified to address any issue that may arise;
- e) Are provided to customers with relevant documentation including product specifications and instructions, test reports for materials and their products, and factory production control certification;
- f) Include comprehensive instructions outlining the products' safe use and reuse, including but not limited to the following:
  - Method (e.g. visual, non-destructive and/or laboratory tests) and frequency of periodic inspections and maintenance<sup>4</sup>;
  - ii. Criteria for continued reuse, for reuse with strength downgrade, or for scrap.

#### Responsibilities of Contractors Using Formwork Structures and Scaffolds

- 5. Ensure the safety and health of workers using formwork structures and scaffolds by , carrying out of the following:
- a) Implementation of a verification system to review the suitability and adequacy of documentation stated in 4(e) and (f);
- b) Inspection of the systems, components and parts to ensure they are in accordance with manufacturers specifications or independent design;
- c) Inspection of the systems, components and parts for physical condition and determination of suitability for reuse; and
- d) Appointment of a competent individual to oversee and manage the above.

<sup>&</sup>lt;sup>3</sup> Contractors who self-fabricate (self-fabricated systems) temporary works such as formwork and shoring would be deemed manufacturers even when these are for own use, while Contractors who supply these for construction by others would be deemed suppliers, on top of any other concurrent duties they may hold, such as those of Employers, Principals and Occupiers.

<sup>&</sup>lt;sup>4</sup> The duty to ensure tests and examinations relevant for the safe use of equipment falls on the manufacturer and supplier of equipment. Unless it is not reasonably practicable for such tests and examinations to be carried out by the manufacturer or supplier (eg. after sales or during prolonged rental periods and it is not reasonably practicable for the manufacturer and supplier to carry out the said tests and examinations during rental), and provided a written undertaking is in effect for another to carry out the said tests and examinations, the manufacturer and supplier remains responsible.

### Responsibilities of Workplace Occupiers Using Formwork Structures and Scaffolds

- 6. Exercise charge, command and control of the workplace and equipment therein, including:
- a) Clearly defining in your Workplace Safety and Health Management Systems (SHMS)
  the competent individual(s) responsible for the management of formwork structures
  and scaffolds;
- b) Having your SHMS periodically audited or reviewed in accordance with prevailing regulations, as applicable.
- 7. Detailed guidance on traceability and reusability are being developed and will be released in upcoming amendments to relevant approved codes of practice ("ACOPs").

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## **Further Reading**

More information can be obtained from the following:

- a) Workplace Safety and Health Act 2006;
- b) Workplace Safety and Health (Construction) Regulations 2007;
- c) Workplace Safety and Health (Scaffolds) Regulations 2011;
- d) Workplace Safety and Health (Risk Management) Regulations;
- e) SS 580 : 2020 Code of Practice for Formwork;
- f) SS 659 : 2020 Code of Practice for Scaffolds;
- g) SS 280: Part 1: 2006 Specification for Metal Scaffoldings Part 1: Frame Scaffoldings;
- h) SS 280 : Part 2 : 2009 Specification for Metal Scaffoldings Part 2 : Modular Scaffoldings;
- i) SS 311 : 2005 Specification for steel tubes and fittings used in tubular scaffolding;
- j) Code of Practice on WSH Risk Management;
- k) MOM Advisory for Professional Engineers on Formwork Safety dated 18 Jan 2014;
- MOM Circular MOM/OSHD/2021-07 Proprietary Table Formwork Safety dated 16 Nov 2021