

Safety & Health Circular No. 17/2009

Safety of Suspended Working Platforms (SWPs)

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Recent irregularities involving suspended working platforms (SWPs) on construction sites have raised concern over site safety. Contractors must ensure construction workplace safety, properly supervise and carefully manage operations on site at all levels to prevent accidents. Therefore, contractors should step up vigilance, strengthen site supervision and conduct regular inspection and testing of SWPs in compliance with regulatory requirements.

Below are key points which contractors must observe, which are by no means exhaustive:

1. Ensure that SWPs are of good mechanical construction. Contractors should check all SWPs have suitable anchorage and support providing stability against overturning. Counterweights, suspension and wire ropes, drums & pulleys, working platforms, brakes, and control levers & switches must all be in good working order and compliant with regulatory requirements. All such SWP components must be suitably protected from corrosion, electrical components should also have adequate insulation to protect them from the weather. Workers should be provided with a safe means of access to SWPs.
2. Develop Method Statements for the erection and dismantling of SWPs in accordance with manufacturer's assembly manuals. Erecting and dismantling SWPs should only be carried out by trained and experienced personnel under the supervision of a competent person. Any alteration of SWPs should only be carried out by a competent person under the advice of a professional engineer.
3. Examine SWPs thoroughly and perform load tests by a competent examiner as appropriate. SWPs must be examined by a competent person, prior to commencement of any work, to ensure that they are in safe working order:
 - with Form 1—inspection to be conducted by competent person not more than 7 days prior to SWP usage
 - with Form 2—examination to be conducted by competent examiner not more than 6 months prior to SWP usage
 - with Form 3—testing to be conducted by competent examiner not more than 12 months prior to SWP usage

4. Provide SWPs—that are raised/lowered by means of climbers, winches and suspension wire ropes at each end—with a back-up safety rope mounted with an automatic safety device at each suspension point. The safety rope with the automatic safety device must be able to support the working platform in the event of failure of the primary suspension rope, winch or climber. The maximum incline of the working platform deck should be less than 25% (i.e. 1:4).
5. Ensure that SWPs are not overloaded and clearly mark the safe working load and maximum number of persons that may be carried on the working platform itself.
6. Provide every person working on SWPs with a fall arrest system including a full body harness, fall arrestor and fittings, and an independent lifeline anchored to suitable anchorage—separate from the SWP suspension system.
7. Avoid using SWPs under adverse weather conditions likely to endanger its stability or cause danger to the persons carried thereon, such as during strong winds and/or thunderstorms. After exposure to adverse weather conditions, SWPs should be load tested and thoroughly examined by a competent examiner as soon as practicable before they are used again.
8. Maintain SWPs properly and keep a detailed maintenance record of such. Regular inspection, examination and testing should be carried out by a competent person and competent examiner in accordance with the *Factories and Industrial Undertakings (Suspended Working Platforms) Regulation*. Functional tests for control, emergency stop, manual descending facility, limit switches, automatic safety devices and braking systems should all be included in such tests as well as those relating to the mechanical structure of the SWP. Certificates should be obtained from the competent person and competent examiner for retention and display on the relevant SWP.
9. Examine wire ropes to ensure that:
 - (a) the total number of visible broken wires does not exceed 5% of the total number of wires in the rope, in any length of 10 times of diameters
 - (b) there is no kink or distortion in the rope
 - (c) there is no sign of wear or corrosion
10. Provide sufficient information, instruction, training and supervision to ensure the safety and health of all personnel involved.

11. Refer to the following for document download:

- *Code of Practice for Safe Use and Operation of Suspended Working Platforms* on the Labour Department's website. (<http://www.labour.gov.hk/eng/public/os/B/platform.pdf>)
- *Guidance Notes on the Inspection, Thorough Examination and Testing of Suspended Working Platforms*. (<http://www.labour.gov.hk/eng/public/os/C/SWP.pdf>).
- *Guidance Notes on Classification and Use of Safety Belts and their Anchorage System*
<http://www.labour.gov.hk/eng/public/os/C/belt.pdf>

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