



نظام الشارقة للسلامة والصحة المهنية
Occupational Safety & Health Sharjah

حكومة الشارقة
هيئة الوقاية والسلامة
Government of Sharjah
Prevention And Safety Authority



Guideline

Mobile Access Towers

OSHJ-GL-04

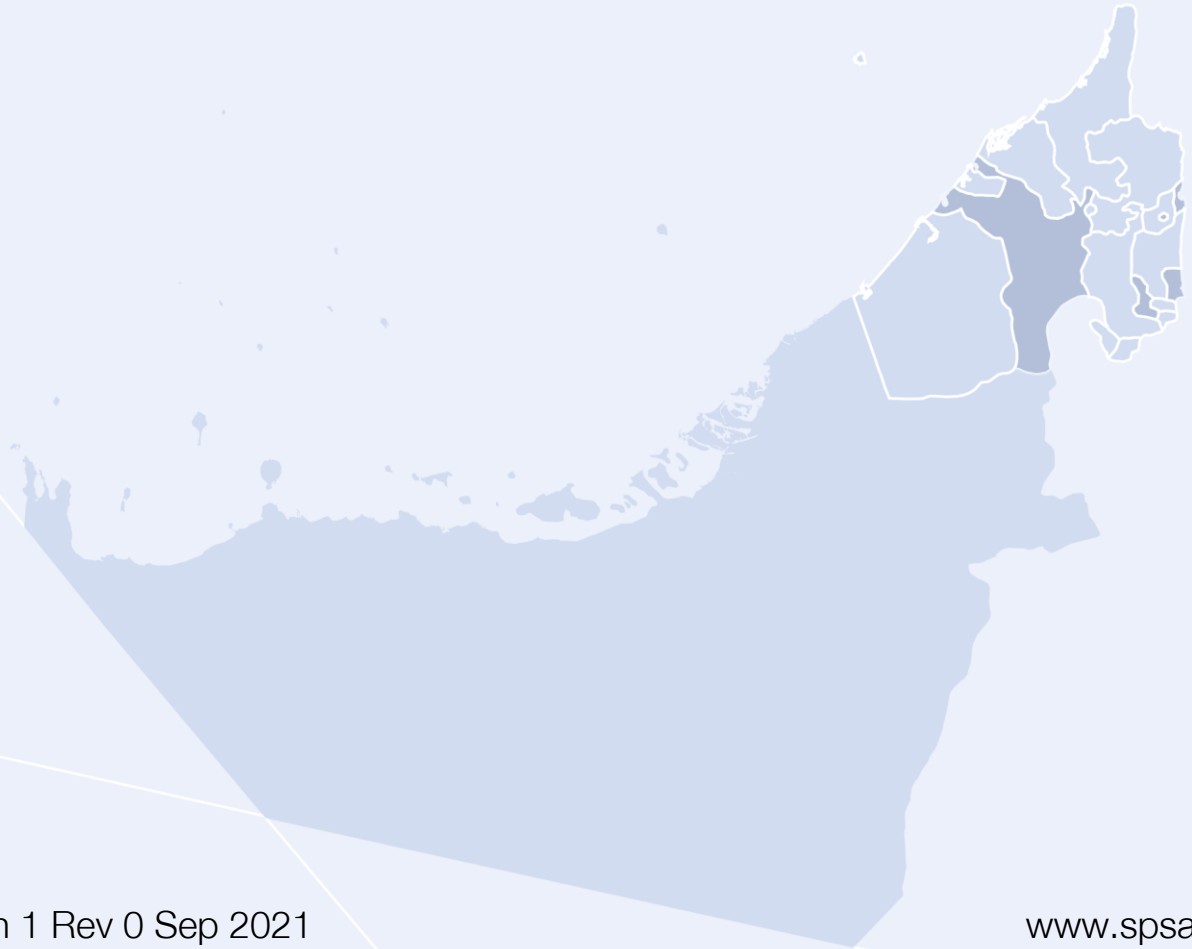


Table of Contents

| | | |
|-------|---|---|
| 1 | Introduction | 2 |
| 2 | Purpose and Scope | 2 |
| 3 | Definitions and Abbreviations | 2 |
| 4 | Roles and Responsibilities | 2 |
| 4.1 | Entity Responsibilities | 2 |
| 4.2 | Employee Responsibilities | 3 |
| 5 | Guidelines | 3 |
| 5.1 | Risk Assessment..... | 3 |
| 5.2 | Manufacturer's Manual..... | 4 |
| 5.3 | Safe Assembly and Dismantling | 4 |
| 5.3.1 | Advanced Guard-Rails | 4 |
| 5.3.2 | Through the Trapdoor – 3T | 4 |
| 5.4 | Falls from Height | 5 |
| 5.5 | Stability..... | 5 |
| 5.6 | Ground Surface | 5 |
| 5.7 | Castors | 5 |
| 5.8 | Tower Access..... | 5 |
| 5.9 | Overhead Services..... | 6 |
| 5.10 | Tower Movement | 6 |
| 5.11 | Inspection of Towers | 6 |
| 6 | Training | 6 |
| 7 | Emergency Preparedness and Response | 7 |
| 8 | References..... | 7 |
| 9 | Document Amendment Record | 8 |

1 Introduction

Mobile access towers are referred to as scaffold towers, they are a safe and versatile means of working at height utilising prefabricated components which are assembled in a modular manner to achieve the required height by following the manufacturer's manual. Current good practice affords the trained and competent user the protection from falls throughout the assembling, use and dismantling processes.

2 Purpose and Scope

This Guideline document has been developed to provide information to entities to assist them in complying with the requirements of the Occupational Safety and Health System in Sharjah.

To achieve compliance in the Emirate of Sharjah, all entities are required to demonstrate a standard of compliance which is equal to or higher than the minimum acceptable requirements outlined in this Guideline document.

3 Definitions and Abbreviations

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|-------------------------------|--|
| Entities: | Government Entities: Government departments, authorities or establishments and the like in the Emirate. Private Entities: Establishments, companies, enterprises and economic activities operating in the Emirate in general. |
| Risk: | Is the combination of likelihood of the hazard causing the loss and the severity of that loss (consequences). |
| Risk Assessment: | The systematic identification of workplace hazards and evaluation of the risks associated. This process takes existing control measures into account and identifies and recommends further control measures where required. |
| Hazard: | Anything that has the potential to cause harm or loss (injury, disease, ill-health, property damage etc). |
| Competence: | The combination of training, skills, experience and knowledge that a person has and their ability to apply all of them to perform their work. |
| Mobile Access Towers: | Prefabricated mobile access towers consisting of frames, braces, platforms, castor wheels and outriggers. |
| Manufacturer's Manual: | The instructions, procedures and recommendations provided by the manufacturer to ensure the safe operation, maintenance and repair of the equipment. |

4 Roles and Responsibilities

4.1 Entity Responsibilities

- Undertake a risk assessment, and select the correct work at height equipment;
- Ensure that adequate control measures identified during risk assessment are implemented;
- Ensure that during the use of mobile access towers, it is safe and suitable for the work activities being conducted;

- Conduct regular inspections and maintenance by a competent person;
- Provide information, instruction, supervision and training to ensure employees are competent to assemble, dismantle and use mobile access towers.

4.2 Employee Responsibilities

- Not endanger themselves or others;
- Follow precautionary control measures to ensure work activities are performed safely;
- Cooperate with the entity and receive information, instruction, supervision and training to ensure competence to assemble, dismantle, use and inspect towers;
- Report any activity or defect which they know are likely to introduce risks to the safety and health of themselves or that of any other person.

5 Guidelines

This guideline relates to mobile access towers, which are made from prefabricated components in standard configurations to a maximum height of 12 meters indoors, and 8 meters outdoors and which have a product conformity certification.

5.1 Risk Assessment

The entity should identify the hazards and conduct a risk assessment to determine if a mobile access tower is suitable work equipment for the type of work at height that will be carried out. The following factors are to be considered during the risk assessment related to mobile access towers, including but not limited to:

- The nature of the work activities to be conducted;
- The surfaces and ground conditions;
- The potential for impact from cranes, vehicles, plant and machinery;
- Overhead electrical services;
- The potential wind load from adverse weather.

The entity should adopt a safe system of work based on the risk assessment should be implemented for the employee performing work activities on mobile access towers to ensure work is conducted safely. The safe system of work including the emergency plan should be communicated effectively to all employees involved and within the vicinity of the work activities.

All managers and supervisors should be familiar with all aspects of the safe system of work. They should also review and revise the system of work as work progresses and inform and instruct employees accordingly. The emergency plan should be practiced as part of the review process.

Further information on risk assessment can be found in OSHJ-CoP-01: Risk Management and Control.

5.2 Manufacturer's Manual

The manufacturers and suppliers of prefabricated access towers must provide a manufacturer's manual. These instructions provided by the supplier of the tower must be available to the entity assembling and using access towers and should be retained. The entity should ensure before assembling the tower, the competent person inspects all the components against those listed in the manufacturer's manual. They should check that all the components are:

- Present;
- Undamaged;
- Functioning correctly;
- Be from the same manufacturer.

5.3 Safe Assembly and Dismantling

There are currently two safe methods of providing a safer environment during the assembly and dismantling of mobile access towers:

- Advanced Guard-Rails (AGR);
- Through the Trapdoor, otherwise known as 3T.

These methods take account of the need to prevent falls during these processes and therefore are not designed to be used in conjunction with personal fall protection systems. The two methods of assembly and dismantling are already designed and provided with a preventive collective protection measure.

There are no suitable anchorage points on a mobile access tower suitable for the connecting of personal fall protection equipment, either as work positioning or fall arrest. Connection of personal fall protection may result in the collapse or overturning of the tower in the event of a fall arrest incident.

These two methods should be adopted by entities as industry best standard.

5.3.1 Advanced Guard-Rails

The AGR system uses specially designed frames that replace diagonal and horizontal braces and creates a guard rail at all stages of erection and dismantling, ensuring that collective fall prevention measures are in place before the user stands on the platform.

5.3.2 Through the Trapdoor – 3T

The 3T method involves the assembler taking up a working position in the trapdoor of the platform, from where they can add or remove components which act as the guard rails on the level above the platform.

It is designed to ensure that the operator does not stand on an unguarded platform but instead installs the components to a particular level while positioned within the trapdoor of that same level. The 3T method makes use of standard tower components.

5.4 Falls from Height

As identified in the building of a mobile access towers using advanced guard rails and 3T method, there is no requirement for personal fall protection equipment as the working position is guarded.

It is **not** recommended that users attach safety harness lanyards to mobile access towers. In the event of an arrested fall, the users are likely to cause the tower to overturn, not only increasing the risk of further injury to the users, but also endangering others in the vicinity from the falling tower.

5.5 Stability

There are several factors that affect mobile access tower stability, including but not limited to:

- The weather conditions;
- Overreaching;
- Work activity that involves applying a sideways load to the tower;
- Heavy items or exceeding the Safe Working Load.

The entity should ensure the castor brakes are always locked, except when the tower is being moved. The manufacturers' manual will provide details on the correct stabilisers or ballast which must be fitted to prevent the tower overturning during use.

5.6 Ground Surface

The entity should ensure the ground surface is suitable for the type of mobile access tower to be used. Where castors are to be used, the surface should be even, and holes, ducts, pits or gratings should be securely fenced or covered. Where the surface is sloping, the tower should be prevented from slipping. Base plates and sole boards should be used where the ground is soft.

5.7 Castors

The entity should ensure the castors are fitted with adequate brakes and they should be securely fixed to each leg of the tower to prevent accidental uncoupling. In a case where the castors or legs are adjustable this is only generally for levelling purposes and should not be used as a means of increasing the working platform height. Ensure the castor brakes are always locked, except when the tower is being moved.

5.8 Tower Access

The entity should ensure the access is provided to the tower using vertical or integral ladders, inclined internal ladders or stairways erected in accordance with the manufacturer's manual.

The entity must ensure all access to the mobile access is on the inside. No one should be allowed to access the tower from the outside as it could cause instability of the ladder and result in it overturning.

Access to the platforms should be through a hatch that is capable of being closed and secured.

5.9 Overhead Services

The entity should ensure the mobile access towers are not used in locations adjacent to overhead electricity lines. Where mobile access towers are being used in the same general area as overhead electricity lines, the entity should provide physical barriers and warning notices to prevent people coming close to them.

The entity must ensure a minimum safe distance is always kept between the overhead lines and the closest point on the tower.

Further information on overhead services can be found in OSHJ-CoP-09: Overhead and Underground Services.

5.10 Tower Movement

The entity should ensure the mobile access towers are never moved with any persons or materials on the tower. It should be moved manually, pushing the tower at or near the base. Mechanical means should not be used to push towers.

The castors should always be locked, except when moving the tower.

5.11 Inspection of Towers

The entity should ensure the mobile access towers are inspected in accordance with the manufacturer's manual, including but not limited to:

- Before being used for the first time;
- After any alteration or dismantling;
- After any event which is likely to have affected its strength or stability;
- At regular intervals not exceeding seven days from the last inspection.

The entity shall record and retain inspection records.

6 Training

The entity should ensure the mobile access towers are assembled, inspected, used and dismantled by competent employees with sufficient skills and training only. It is recommended that all those responsible for work at height using mobile access towers are trained in languages and in a format that employees understand.

Employees should be trained on the assembly, use, dismantling and inspection of mobile access towers. User training should conform to an internationally recognised standard or equivalent.

The entity should ensure the managers and supervisors are trained on overseeing employees, ensuring work is planned and organised, employees are competent and that mobile access towers are inspected and maintained. Manager training should conform to an internationally recognised standard or equivalent.

Training providers who provide training on mobile access towers, should be able to demonstrate conformity to an internationally recognised standard or equivalent.

Periodic refresher training should be conducted to ensure employees competency is maintained, including but not limited to:

- Where training certification has expired;
- Where identified as part of a training needs analysis;
- Where risk assessment findings identify training as a measure to control risks;
- Where there is a change in legal requirements;
- Where incident investigation findings recommend refresher training.

The entity must record and maintain accurate training records of OSH training provided to employees.

Further information on training can be found in OSHJ-GL-26: Training and Competence.

7 Emergency Preparedness and Response

The entity should be prepared for emergency situations that may occur during work activities involving mobile access towers and working at height. Due to increased risks from working at height, the entity should have a plan on what to do when an emergency occurs and how to respond to that emergency.

Factors for consideration in the emergency plan, include but not limited to:

- Providing a rapid response in the event of a tower collapse or overturning;
- Appointing emergency response personnel who can take charge and make decisions on behalf of the entity during an emergency and liaise with emergency services;
- Employees are trained in emergency response, including information of first aid arrangements and where first-aiders, first aid equipment and facilities are located.

Further information on first aid can be found in OSHJ-CoP-16: First Aid at Work.

Further information on developing an emergency plan can be found in OSHJ-CoP-18: Emergency Preparedness and Response.

8 References

OSHJ-CoP-01: Risk Management and Control

OSHJ-CoP-09: Overhead and Underground Services

OSHJ-CoP-16: First Aid at Work

OSHJ-CoP-18: Emergency Preparedness and Response

OSHJ-GL-26: Training and Competence

9 Document Amendment Record

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