1.0 INTRODUCTION

Choosing access equipment in doing high rise window cleaning or external façade maintenance is determined by the height to be negotiated, complexity of the building facade, duration and extent of work, and required cleaning frequency. Suspended access equipment such as suspended cradle is a common form of access for external window cleaning and external façade maintenance for many tall buildings. Use of this type of equipment is one of the safest ways to clean windows and metals of buildings; however, things can still sometimes go wrong.

2.0 SCOPE

This guideline provides a series of requirements and instructions for window cleaning and/or external façade maintenance activity using suspended cradles so that the risk of accident can be reduced to as far as possible. This guideline will apply to all workers/contractors within the Dubai World jurisdiction who are using suspended access equipment when doing window cleaning and/or external façade maintenance activity for high rise buildings.

3.0 GUIDELINE

3.1 Major Elements of a Suspended Access System

3.1.1 Cradle or working platform
3.1.2 Suspension ropes and hoisting equipment
3.1.3 A temporary or permanent roof rig to which the suspension ropes and cradle are attached.

![Fig. 1: Suspended Access Equipment](image)

3.2 Safety Checks Before Use

3.2.1 A full Risk Assessment and Method Statement should be available. This should outline any potential hazards in doing the activity and must detail how the job will be carried out.
3.2.2 A Permit to Work document must also be obtained from the Building Administration/Maintenance Office.
3.2.3 All safety devices must be operating correctly e.g. stops, override switches, and brakes.
3.2.4 All control buttons (including emergency buttons) and switches are functioning correctly and can control the cradle properly.
3.2.5 Check for any physical signs of wear or damage of the equipment.
3.2.6 Cradle, tracks or runways should be free from any signs of extensive corrosion.
3.2.7 Designated safe anchorage points are provided on the cradle.
3.2.8 All electrical connectors are secured.
3.2.9 There should be no naked or exposed electrical wiring.
3.2.10 All tracks or runways are not kinked or damaged.
3.2.11 Supporting ropes are reeved correctly into winding drum and over all pulleys.
3.2.12 All ropes are secured correctly at anchor ends.
3.2.13 The floor of the cradle is not damaged when viewed from above and below.
3.2.14 Check all guard rails by applying a short, sharp pull on them from the outside of the cradle. Edge protection must have toe boards and material should not fall from or through the cradle’s base.
3.2.15 For articulated equipment, check if all connecting pins are in place.
3.2.16 Cradle should run smoothly and that there are no faults along the cable. This is done by carrying out a number of ascents and descents prior to starting work. If there is any doubt about its mechanical integrity, DO NOT USE IT!
3.2.17 Consider the weather conditions and DO NOT OPERATE if the wind speed is too high and/or not go beyond manufacturer’s recommendation e.g. 25km/hr.

3.3 Safe Use and Operation

3.3.1 Cradles shall only be used by suitably trained and competent workers. They should know emergency and evacuation procedures to enable them to do what is necessary when the platform fails or fire breaks out in the building being worked on.
3.3.2 Access cradles must display suitable safety signs and have Safe Working Load (SWL) displayed. Do not overload the cradle beyond its safe working load, e.g. extra materials or people.
3.3.3 Suitable lanyards shall be used to secure all tools and equipment taken into the cradle.
3.3.4 There should be no obstructions in the direction of travel such as windows opening outwards, satellite dishes, etc. The building owners must understand they should not open the windows when cleaning activities is being carried out.
3.3.5 Do not work outside the confines of the platform.
3.3.6 Do not alter the configuration of the cradle.
3.3.7 Stop work and report if any malfunctions have occurred.
3.3.8 Do not operate if the wind speed is too high. Check the manufacturer’s prescribed maximum wind speed.
3.3.9 Do not allow other person to approach the cradle when it is being operated.
3.3.10 Do not access or leave the cradle other than at ground level or a designated safe access point.
3.3.11 Affected work area should be provided with appropriate warning signage and must be barricaded to prevent any falling materials from hitting any structure/personnel directly below the work area.
3.4 Personal Protective Equipment (PPE)

3.4.1 Full-body harness with a means of connection to an anchorage point should be used. Always attach the harness to a designated eyebolt or attachment point.

3.4.2 Check the lanyard from end to end, making sure that there are no worn, broken, or cut fibers. Look for evidence of stretching or impact-loading indicating that the lanyard may have been involved in a fall arrest.

3.4.3 Gloves and overalls should be provided to protect the workers from adverse weather conditions but should not restrict their movement unnecessarily.

3.5 Maintenance, Testing and Certification

3.5.1 Suspended access equipment shall be subject to semi-annual testing and certification i.e. every 6 months by an EHS Approved Third Party Agency.

3.5.2 Suspended access equipment shall also be tested and certified whenever modification or relocation has been done.

3.5.3 Maintenance and inspection records should always be kept and made available whenever deemed required to be shown.

3.6 Inspection

3.6.1 Suspended access equipment should be inspected frequently by a competent person to ensure they are correctly erected or not damaged. Cradles must be inspected:

3.6.1.1 After assembly in any position
3.6.1.2 After exceptional circumstances which may affect its stability
3.6.1.3 At intervals not exceeding seven (7) days.

3.6.2 At the end of each working day when the suspended access equipment is not in use:

3.6.2.1 The platform should be cleared of tools and equipment.
3.6.2.2 All power has been switched off.
3.6.2.3 The equipment is secured to the anchorage points on the building and should not be accessible to vandals or trespassers.
3.6.2.4 Notices are attached to the equipment warning other people that it should not be used.
3.6.2.5 Check the shift report for any record of malfunction during the day.
3.7 Training

3.7.1 Window cleaners must be competent to do so and have received appropriate information, instruction and documented training record relating to the hazards of working at height, correct methods of working at height and emergency procedures.

3.8 Prequalification

3.8.1 All companies dealing with activities on window cleaning and maintenance of external façade of buildings and who will be using Suspended Access Equipment (i.e. Suspended Cradles) in carrying out the activities within Dubai World Jurisdiction must be pre qualified and approved by Trakhees - EHS.

3.8.2 Application for prequalification shall follow the Trakhees - EHS Procedure for Registration / Renewal of Window Cleaning and External Façade Maintenance Companies (EHS-DW-01).

4.0 REFERENCES

4.1 HSE Information Sheet MISC611
4.2 House Builders Health & Safety Manual 2008
4.3 DM Technical Guideline No. 41: Examination and Certification of Cranes, Hoists, Lifts and Other Lifting Appliances.
4.4 DAC-REQ-06: Accreditation Requirements of Inspection Bodies for Lifting Equipment January 2009