

Safe Installation and Dismantling of Equipment at Theocratic Events

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PURPOSE

1. This guideline provides guidance on the safe installation and dismantling of equipment at conventions, to ensure the safety and well-being of all volunteers and attendees.

SCOPE

2. This guideline applies to all volunteers involved in the installation and dismantling of any equipment at conventions, including but not limited to audio/video, lighting, staging, and other technical equipment. It also considers general safety.

KEY RISKS

3. The key hazards at conventions include:

- (1) **Working at Height:** Falls from ladders, elevated platforms, or platforms.
- (2) **Electrical Hazards:** Electrocution, shocks, or fires due to faulty electrical equipment or unsafe practices.
- (3) **Manual Handling:** Injuries from lifting, carrying, or moving heavy or bulky equipment.
- (4) **Trip Hazards:** Trips and falls caused by cables, wires, or equipment left on the ground.
- (5) **Falling Objects:** Injuries from equipment falling from heights.
- (6) **Equipment Damage:** Damage to equipment due to improper handling or transportation.

CONTROL MEASURES

4. The key control measures include:

- (1) **Planning and Assessment:** Conduct thorough risk assessments before starting any work, utilizing the *Congregation Job Hazard Analysis* (DC-85) form to identify potential hazards and implement necessary controls. This includes evaluating tasks involving working at height, electrical work, use of ladders and platforms, power tools,

moving equipment, stairs, uneven surfaces, heavy lifting, and work in extreme conditions. The DC-85 should thoroughly consider all dismantling and disassembly considerations.

- (2) **Training and Supervision:** Ensure all volunteers are adequately trained and supervised for their tasks.
- (3) **Personal Protective Equipment (PPE):** Provide or ensure all have and use appropriate PPE, including hard hats, safety glasses, gloves, appropriate footwear, and high-visibility vests.
- (4) **Safe Equipment:** Use only approved and well-maintained equipment in the manner and for the purpose indicated by the manufacturer.
- (5) **Working at Height:** Follow safe practices for using ladders, elevated platforms, and fall protection systems.
- (6) **Electrical Safety:** Use qualified electricians for electrical work, inspect cords regularly, and use lockout/tagout procedures.
- (7) **Manual Handling:** Use proper lifting techniques and equipment for heavy or bulky items.
- (8) **Housekeeping:** Keep work areas clean, organized, and free of trip hazards.
- (9) **Emergency Procedures:** Establish and communicate emergency procedures.

IMPLEMENTATION

5. **Responsibilities:** The convention committee takes overall responsibility for safety of the convention operation. Overseers of departments are responsible for implementing safety within their departments. The convention safety team supports the convention committee and overseers in fulfilling their responsibilities.

6. **General Safety Guidelines:** These general safety guidelines should be followed during installation and dismantling of equipment at conventions:

- (1) **Secure Area:** Install physical barriers and signage to securely delineate the work area during installation and dismantling operations.
- (2) **Working on Ladders and Elevated Platforms:** Follow safe practices for using ladders, elevated platforms, and fall protection systems. Ensure ladders are stable and in good condition. Use fall protection when working on elevated platforms. Ensure operators of mobile elevating work platforms (MEWPS) are trained and have proper certification as required by law.
- (3) **Working Around Forklifts:** Maintain a safe distance from operating forklifts and follow directions from spotters. Never approach a forklift without making eye contact with the operator. Forklift operators should be trained and have proper certification as required by law.
- (4) **Lifting Heavy Objects:** Use proper lifting techniques and ask for assistance with heavy or bulky items. Use mechanical lifting devices when available.
- (5) **Safety for Hands and Feet:** Wear appropriate gloves and work shoes to protect hands and feet. Exercise caution when handling sharp tools or equipment.
- (6) **Electrical Hazards:** Use qualified electricians for electrical work, inspect cords regularly, and use lockout/tagout procedures when working on electrical equipment. Never work on electrical equipment while it is energized. Rented facilities may have

personnel available for connection of high-current equipment to reduce the risk for volunteers.

- (7) **Elevated or Suspended Equipment:** Ensure equipment is installed at a safe height and secured properly. Use appropriate hardware and fasteners for mounting equipment.
- (8) **Working at Height:** Use appropriate fall protection systems when working at height. Ensure that all personnel are trained in the proper use of fall protection equipment.
- (9) **Transporting Equipment:** Secure equipment properly during transportation to prevent damage or shifting. Use straps or other restraints to secure equipment on pallets or in trucks.

7. **Specific Equipment Considerations:** Note the following concerns in relation to specific equipment installation:

- (1) **Audio Systems:** Ensure speakers are securely mounted and cables are properly managed. Use cable ramps or covers to protect cables from damage and prevent trip hazards. When installing speakers, ensure speaker stands or lifts are stable and can withstand wind or accidental impact by securing them with additional weights or straps. Verify that speaker lifts are level and on a stable surface before raising them to full height.
- (2) **Video Systems:** Use qualified electricians for electrical connections and ensure LED panels are handled and installed safely. Use caution when handling LED panels, as they can be fragile. When assembling video walls on an elevated platform, use a Mobile Elevating Work Platform (MEWP) if possible. Create restricted-access areas around MEWPs when assembling video walls.
- (3) **Lighting Systems:** Ensure lights are securely mounted and cables are properly managed. Use appropriate safety equipment when working with high-intensity lighting.

8. **Platform Installation:** The following considerations should be taken into account when working on platforms:

- (1) **Minimum Risk Design:** Wherever possible, prioritize platform designs that minimize risks. This includes considering factors such as platform height and size, proximity of participants to edges, and the complexity of the design.
- (2) **Structural Integrity:** Ensure the platform structure is stable, level, and capable of supporting the intended loads. This includes considering the weight of equipment, volunteers, and any potential dynamic loads from movement.
- (3) **Safe Assembly:** Follow manufacturer guidelines and industry best practices for assembling the platform structure. Use appropriate tools and equipment, and ensure all connections are secure.
- (4) **Scaffolding Safety:** If scaffolding is used for platform construction, ensure it is erected, inspected, and dismantled by a competent person. Use guard-rails, toe boards, and other fall protection measures where possible.
- (5) **Edge Protection:** Install guardrails or other edge protection measures to prevent falls from the platform. Clearly mark platform edges and any changes in elevation.
- (6) **Access and Egress:** Provide safe and clearly marked access and egress points for the platform. Install secure handrails and fixed steps where required.
- (7) **Under-Platform Safety:** Ensure the area under the platform is clear of obstructions and hazards. Use barriers or covers to prevent access to unauthorized personnel.

9. **Audience Flow:** When considering the location of equipment being installed, include the following in planning:

- (1) **Crowd Management:** Implement measures to ensure smooth audience flow throughout the convention venue. This includes considering the layout of seating, platform and department locations, pre-existing exhibits in the facility, and common areas to minimize congestion and bottlenecks.
- (2) **Signage and Directions:** Provide clear signage and directions to guide attendees and facilitate efficient movement.
- (3) **Emergency Exits:** Ensure all emergency exits are clearly marked and easily accessible. Keep pathways to exits clear of obstructions.
- (4) **Staffing:** Use trained attendants to monitor crowd flow and provide assistance as needed.
- (5) **Evacuation Planning:** Ensure installations do not obstruct emergency egress routes during an emergency.

10. **Dismantling:** Include the following considerations for dismantling and egress from a facility:

- (1) **Orderly Dismantling:** Ensure equipment is dismantled in an orderly and safe manner. Do not rush the dismantling process. Ensure volunteers are well-trained in the safe system of work for disassembly. Set up physical barriers and signage to securely delineate the work area during dismantling operations. Apply the same safety precautions during dismantling as during installation, especially for work at height and electrical safety.
- (2) **Damage Report:** Report any damaged equipment to the appropriate department. Document any damage with photographs or video.

LOSS PREVENTION AND SECURITY

11. Protect equipment, volunteers, and delegates through the following precautions:

- (1) **Equipment Inventory:** Maintain a detailed inventory of all equipment brought to the venue, including serial numbers and descriptions to assist with identifying any theft.
- (2) **Secure Storage:** When not in use, store equipment in a secure location with limited access.
- (3) **Transport Security:** During transportation, ensure equipment is secured and the vehicles are locked.
- (4) **On-Site Security:** When equipment is installed and in use, implement measures to deter theft and vandalism. This may include physical security personnel, surveillance cameras, and alarm systems. Assess whether the venue's overnight security presence is sufficient or if additional precautions are necessary.
- (5) **Volunteer Awareness:** Educate convention volunteers about the importance of security and encourage them to report any suspicious activity.
- (6) **Venue Cooperation:** Work with venue management to understand and implement their security protocols and utilize their existing security infrastructure where possible.

INTERACTING WITH VENUE MANAGEMENT

12. Establish and maintain open communication with venue management regarding all the following health and safety matters and loss prevention matters. Follow direction found in

Convention Organization Guidelines (CO-1) for who should communicate with facility management. Additional considerations should include:

- (1) **Emergency Procedures:** Familiarize yourself with the venue's emergency procedures, including evacuation routes, fire alarm systems, and assembly points. Ensure that this information is passed on to overseers and attendants as appropriate for their assignments.
- (2) **Permits and Approvals:** Obtain any necessary permits or approvals from venue management before commencing work, especially for activities like working at height or electrical work.
- (3) **Site-Specific Information:** Obtain site-specific information from venue management, such as locations of electrical panels, shut-off valves, and any potential hazards specific to the venue.
- (4) **Compliance:** Ensure compliance with all venue-specific safety regulations and requirements.
- (5) **Incident Reporting:** Report any accidents, incidents, or near-misses to both the convention oversight and venue management (if required), and complete a *Risk Incident Report (TO-5)* following the *Risk Incident Report Instructions (TO-5i)*.
- (6) **Security:** Collaborate with venue management to understand and implement their security protocols. This may include controlling access to the event area, securing equipment, and coordinating with venue security personnel.