



Abu Dhabi EHSMS Regulatory Framework (AD EHSMS RF)

EHS Regulatory Instrument

Code of Practice

**EHS RI - CoP 43.0 – Temporary
Structures**

Version 2.0

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ACKNOWLEDGEMENTS

With gratitude Abu Dhabi EHS Center acknowledges the great support provided by the Executive Council in facilitating the issuance of Abu Dhabi Emirate Environment, Health and Safety Management System (AD EHSMS) and its implementation at Emirate level.

The issuance of the system would not have been possible without the supervision, diligent efforts and productive recommendations of the AD EHS Center Board of Directors.

These documents (Regulatory Instruments) constitute the efforts of the Abu Dhabi EHS Center and the concerned Sector Regulatory Authorities who worked together to integrate all relevant regulatory requirements under *AD EHSMS RF*. The input, contribution and constructive views of all sectors is highly appreciated.

May these documents prove to be beneficial and helpful in system implementation and in expanding the knowledge in the EHS field.



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Preface

This Abu Dhabi EHS Regulatory Instrument was developed by the Building and Construction Sector Regulatory Authority as the primary Competent Authority for this topic to set the minimum mandatory requirements.

Every effort was made in developing this document so that it does not conflict with existing local or federal laws and regulations. In case of conflict, requirements of the existing local and federal laws and regulations shall prevail, and all concerned are obliged to bring the same to the attention of AD EHS Center for resolution.

This AD EHS Regulatory Instrument has been developed, reviewed and approved, following the process as described in *AD EHSMS Implementation Guideline: The Integration of EHS Requirements in the Emirate of Abu Dhabi*, by the following stakeholders:

- Abu Dhabi EHS Higher Committee;
- Abu Dhabi EHS Center;
- Environment Agency Abu Dhabi;
- Department of Municipal Affairs;
 - Abu Dhabi City Municipality;
 - Al Ain City Municipality;
 - Western Region Municipality;
- Department of Transport – Abu Dhabi;
- Abu Dhabi Water and Electricity Authority;
- Health Authority - Abu Dhabi;
- Higher Corporation for Specialized Economic Zones (ZonesCorp);
- Center for Waste Management – Abu Dhabi;
- Abu Dhabi Tourism Authority;
- Abu Dhabi Food Control Authority;
- Abu Dhabi Education Council;
- Regulation and Supervision Bureau; and
- Other Relevant Federal and Local Competent Authorities.

The AD EHSMS consists of the following hierarchy of documents:

- AD EHSMS RF Elements - Mandatory System Requirements

EHS Regulatory Instruments:

- Standards and Guideline Values - Mandatory EHS threshold and exposure levels
- Codes of Practice - Mandatory EHS technical requirements – subject specific
- Mechanisms - Mandatory system implementation processes and procedures

Guidelines:

- Technical Guidelines - Non-mandatory guidance on how to implement an EHS Regulatory Instrument
- AD EHSMS Guidance Documents - Non-mandatory guidance and interpretation of an *AD EHSMS RF* concept and/or principle

Further, this document is not intended to conflict with any contractual obligations in effect at the time of its issuance. However, all future contracts shall adhere to applicable requirements stated herein, and existing long term contracts shall be brought into compliance with its requirements as soon as reasonably practicable as stipulated by relevant subject authorities.

This document will be reviewed periodically as part of the continual improvement cycle.

1. Introduction

- (a) This Code of Practice (CoP) applies to all employers within the Emirate of Abu Dhabi. This CoP is designed to incorporate requirements set by the Abu Dhabi EHS Center and Sector Regulatory Authorities in the Emirate of Abu Dhabi.
- (b) This CoP establishes the requirements and standards so that the risks associated with temporary structures can be prevented or reduced through the introduction of planning and physical control measures.
- (c) 'Temporary structure' refers to any structure that is erected on a temporary basis and includes porta-cabins, containers and tents.

2. Training and Competency

- (a) Employers shall ensure that EHS training complies with the requirements of:
 - (i) *AD EHSMS RF – Element 05 – Training and Competency;*
 - (ii) *AD EHS RI – Mechanism 7.0 – AD EHS Professional Entity Registration;* and
 - (iii) *AD EHS RI – Mechanism 8.0 – AD EHS Practitioner Registration.*
- (b) In accordance with *AD EHSMS RF – Element 01 – Roles, Responsibilities and Self-Regulation* Section 3.2.5 employers shall ensure employees required to implement the requirements of this CoP are trained in the planning and erection of temporary structures and understand the risks associated with such activities and the control measures implemented by the employer.
- (c) Training for employees shall be competency-based and include:
 - (i) information on the safe systems of work identified in the risk assessment;
 - (ii) appropriate control measures to be followed by those involved in planning the erection of temporary structures;
 - (iii) appropriate control measures to be followed by those involved in erecting temporary structures; and
 - (iv) reporting procedure in the event of incidents during the erection and use of temporary structures.
- (d) Employers shall conduct additional retraining whenever a periodic inspection reveals, or there is a reason to believe, that there are deviations from or inadequacies in the employee's knowledge of temporary structure requirements.
- (e) Employers shall conduct additional retraining whenever a temporary structure procedure fails.
- (f) Employers shall maintain a record of the required training that contains the following information:
 - (i) name and ID number;
 - (ii) Emirates ID number;
 - (iii) subject(s) of training;
 - (iv) date(s) of training; and

- (v) company/person(s) providing the training.

3. Requirements

3.1 Roles and Responsibilities

3.1.1 Employers

- (a) Employers shall undertake their roles and responsibilities in accordance with the general requirements of *AD EHSMS RF – Element 01 – Roles, Responsibilities and Self-Regulation Section 3.2.5*.
- (b) Employers shall undertake their specific roles and responsibilities in accordance with the following:
- (i) temporary structures shall be fit for purpose and meet all the requirements of the *UAE Fire and Life Safety Code 2011*;
 - (ii) where temporary structures are to be used for public gatherings or functions a detailed public safety risk assessment shall be undertaken;
 - (iii) specific emergency arrangements shall be developed to deal with the emergency evacuation of temporary structures; and
 - (iv) all persons involved in designing, specifying and erecting temporary structures are trained and competent.

3.1.2 Employees

- (a) Employees shall undertake their roles and responsibilities in accordance with the general requirements of *AD EHSMS RF – Element 01 – Roles, Responsibilities and Self-Regulation Section 3.2.7*.
- (b) Employees shall undertake their specific roles and responsibilities in accordance with the following:
- (i) employees shall follow all instruction and training they receive on erecting and working in temporary structures; and
 - (ii) employees shall report any activity or defect relating to temporary structures which they believe is reasonably foreseeable endanger their safety or the safety of another person.

3.2 Planning and Assessment

- (a) Employers shall evaluate the need for temporary structures and the risks associated with their use using risk management practices as required by *AD EHSMS RF – Element 02 – Risk Management*.
- (b) Employers shall ensure the following:
- (i) the requirement for a temporary structure shall be assessed only where the use of a permanent structure is not reasonably practicable. Typical uses of temporary structures would include the following:
 - 1) temporary site offices;

- 2) tent for a private party or wedding;
 - 3) tent for a celebration or festival open to the public;
 - 4) temporary sales office; and
 - 5) exhibition or conference offices.
- (ii) an assessment of the various risks is undertaken and systems of work which are safe to both employees and the public shall be established;
 - (iii) that appropriate control measures are implemented in order to manage the risks associated with temporary structures;
 - (iv) that for the Building and Construction Sector the requirements for temporary structures are included in the Pre-Tender Environment, Health and Safety Plan in accordance with *AD EHS RI – CoP 53.0 – EHS Management During “Construction Work”*; and
 - (v) that associated safe systems of work, and site rules are included in the Environment, Health and Safety Construction Management Plan (EHS-CMP) in the case of the Building and Construction Sector in accordance with *AD EHS RI – CoP 53.0 – EHS Management During “Construction Work”*.

3.3 Portable Buildings

3.3.1 General Requirements

- (a) Employers shall ensure that portable buildings are fit for purpose and comply with all the appropriate fire and electrical safety regulations that are required in the Emirate of Abu Dhabi.
- (b) Employers shall ensure the following:
 - (i) the positioning of portable buildings on site shall allow for safe access and egress for persons using the portable building;
 - (ii) a level concrete base shall be provided for each portable building and the gap between the bottom of the building and the ground shall be filled to prevent the accumulation of combustible waste materials under the building;
 - (iii) where multiple (2 or more) portable buildings are used a full emergency plan shall be developed including a fully integrated fire alarm system;
 - (iv) fire detection equipment and firefighting equipment shall be provided in each portable building in accordance with the UAE Fire and Life Safety Code 2011 and *AD EHS RI – CoP 7.0 – Fire Prevention, Planning and Control*;
 - (v) spacing between portable buildings shall be in accordance with the UAE Fire and Life Safety Code 2011;
 - (vi) where multiple portable buildings are used access between buildings shall be maintained with footpaths and walkways. Segregation shall be provided between pedestrians and vehicles in accordance with *AD EHS RI – CoP 44.0 – Traffic Management and Logistics*; and
 - (vii) appropriate steps along with a handrail shall be provided at the entrance point and emergency exit of every portable building.

3.3.2 Electrical Installations

- (a) Employers shall ensure that electrical installations to every portable building are made by a competent electrician in accordance with *AD EHS RI – CoP 15.0 – Electrical Safety*.
- (b) Employers shall test the electrical distribution board and associated cables, wall sockets and other fixed electrical installations in portable buildings every six (6) months.

3.3.3 Cranes to Lift Portable Buildings

- (a) Employers shall ensure that the requirements of *AD EHS RI – CoP 34.0 – Safe Use of Lifting Equipment and Lifting Accessories* are complied with when lifting portable buildings.
- (b) Employers shall ensure that the manufacturer's recommendations are followed for lifting proprietary portable buildings.
- (c) Employers shall under no circumstances lift portable buildings unless the lifting points have been certified following an inspection and test by an approved third party engineer.

3.3.4 Stacking of Portable Buildings

- (a) Employers shall ensure that where portable buildings are stacked a competent engineer shall check all loading to ensure the safety of the building.
- (b) Employers shall provide appropriate metal stairs to access the first floor level of portable buildings. The stairs shall be provided with a fixed handrail and landing platforms shall be fitted with toe boards in accordance with *AD EHS RI – CoP 23.0 – Working at Heights*.
- (c) At every location where portable buildings are stacked the upper levels shall have a means of exit in addition to the entrance normally used.
- (d) Where portable buildings are stacked the roof of the lower building and the floor of the upper building shall be fire rated in accordance with the Civil Defence requirements (UAE Fire and Life Safety Code 2011).

3.4 Tents

3.4.1 Permit and Plan Processing

- (a) Employers shall ensure that a plan covering the following points is submitted to the concerned SRA at least 10 working days before the scheduled erection of any tent or canopy that will be used for any commercial event:
 - (i) an appropriate scale or dimensioned site diagram showing the location of the tent to other structures;
 - (ii) a statement highlighting the intended use of structure together with dates for which the permit is required;

- (iii) designated allocation for parking of vehicles shall be detailed on the plan, this shall include access routes for emergency vehicles;
 - (iv) fire safety aspects shall be taken into account for the material used to build the temporary structure. The material shall be flame retardant to a recognized international standard such as NFPA;
 - (v) fire detection, prevention and fighting systems approved by Civil Defence;
 - (vi) locations of any additional emergency equipment such as hose-lines or emergency power supplies intended shall be detailed on the plan;
 - (vii) type of floor surface proposed inside tent or canopy;
 - (viii) detail the proposed use of any heating/cooling cooking equipment or open flame devices is intended; and
 - (ix) emergency rescue plan detailing arrangements and procedures to deal with emergency situations that could arise.
- (b) Employers shall submit construction documents with the following marked-up and clearly shown on the floor plan:
- (i) proposed seating arrangements and dimensions of tables including the maximum capacity of the tent;
 - (ii) type of all other interior obstacles such as cabinets, display stands, etc;
 - (iii) all common accesses and emergency exit pathways;
 - (iv) location and type of emergency lighting, including proposed power source;
 - (v) locations and type of exit signs and “NO SMOKING” signs;
 - (vi) fire protection equipment or/and portable fire extinguishers; and
 - (vii) location and width of fire access roadways.

3.4.2 Inspection Requirements

- (a) Employers shall notify the concerned SRA after the tent or canopy has been erected (prior to the event). The team inspecting shall verify compliance with applicable regulations. The inspections shall be scheduled after the erection of the structure is complete but at least 2 days prior to the date of the event wherein all relevant approvals from the building and planning department will be verified.

3.4.3 Access and Egress Requirements

- (a) Employers shall ensure the following:
- (i) tents, canopies, or membrane structures shall not be located within 6 meters of plot lines, buildings, other tents, parked vehicles or internal combustion engines. For the purpose of determining required distances, support ropes and guy wires shall be considered as part of the tent or canopy;
 - (ii) a minimum of 2 exits shall be provided and each exit shall be of minimum 2 meters wide irrespective of occupant load. The exit capacity is based on a maximum of 120 persons per meter width of exit;
 - (iii) the maximum travel distance from any point within the tent to the nearest exit at the external edge of the tent shall not exceed 30 meters;

- (iv) any row of stall inside a tent shall not exceed 15 meters in length;
- (v) separation distance of at least 3 meters between rows of stalls shall be maintained;
- (vi) all designated exits points shall be provided with illuminated “Exit” signs incorporated with battery operated standby power supply; and
- (vii) all escape routes / passageways shall be free of obstruction. Exit points shall lead directly to open exterior areas.

3.4.4 Fire Fighting Provisions and Structural Fire Precautions

- (a) Employers shall ensure the following:
 - (i) all parts of a tent are to be located within 100 meters of a fire hydrant. No tent shall be located within 3 meters of any fire hydrant, breeching inlet of fire-fighting rising main or fire exit staircases of neighboring buildings;
 - (ii) no activity shall be carried out on the fire engine access way / fire engine hard standing (parking space) or pedestrian walkways;
 - (iii) ABC dry chemical powder fire extinguisher of 2.5 kg capacity shall be provided such that no person needs to travel more than 15 meters to reach them;
 - (iv) two 2.5kg capacity carbon dioxide fire extinguishers shall be provided in the vicinity of each generator / air conditioning set. Generators are to be sited at least 5 meters away from buildings and tents / stalls;
 - (v) AC units with return-air shall be fitted with smoke detectors;
 - (vi) roofing or false ceiling of covered booths shall be of non-combustible;
 - (vii) all sides of the timber flooring decking / stage / platform shall be appropriately sealed with no storage of goods / materials / electrical services beneath them;
 - (viii) the sidewalls, drops, top, floor coverings, Fabric materials / curtains and decorative materials shall be of flame-resistant material or treated with a flame retardant material; and
 - (ix) fire vehicle and ambulance shall be kept standby at the site throughout the event in accordance with the Civil Defence instructions.

3.4.5 Heating and Cooking Requirements

- (a) Employers shall ensure the following:
 - (i) any activity involving the use of LPG shall be subject to a specific permit and permission from the Civil Defense. A risk assessment shall be prepared for the hazards of using LPG and control measures shall meet the Civil Defense and Municipality requirements;
 - (ii) “open-flame” cooking shall not be performed except where solid fuel burners are used to warm food that has already been prepared and cooked;
 - (iii) combustible materials shall kept to a minimum and away from heat sources; and
 - (iv) outdoor cooking that produces sparks or grease laden vapors shall not be performed within 6 meters of a tent, canopy, or membrane structure.

3.4.6 General Requirements

- (a) Employers shall ensure the following:
- (i) the event organizer shall provide a team of appropriately trained personnel to control occupancy load within the tent to the agreed maximum and also to deal with any emergency situations that may arise;
 - (ii) electrical fixtures /wiring are to be firmly secured away from public's path;
 - (iii) that temporary structures are dismantled and removed within 3 days upon expiry of the approved period;
 - (iv) there shall be a minimum clearance of at least 1 meter between the fabric envelope and all contents located inside the tent or membrane structure;
 - (v) spot or effect lighting shall only be electrically powered and all combustible materials within 2 meters shall be cleared;
 - (vi) smoking shall not be permitted in tents, canopies, or membrane structures. Appropriate "NO SMOKING" signs shall be conspicuously posted throughout the structure; and
 - (vii) the floor surface inside tents, canopies, or membrane structures and the ground outside and within a 10-meter perimeter shall be kept clear of combustible waste. Such waste shall be stored in approved containers until removed from the premises.

4. References

- *AD EHSMS RF – Element 01 – Roles, Responsibilities and Self-Regulation*
- *AD EHSMS RF – Element 02 – Risk Management*
- *AD EHSMS RF – Element 09 – Compliance and Management Review*
- *AD EHS RI – CoP 7.0 – Fire Prevention, Planning and Control*
- *AD EHS RI – CoP 15.0 – Electrical Safety*
- *AD EHS RI – CoP 20.0 – Safe Use of Lifting Equipment and Lifting Accessories*
- *AD EHS RI – CoP 23.0 – Working at Heights*
- *AD EHS RI – CoP 44.0 – Site Traffic Management and Logistics*
- *AD EHS RI – CoP 53.0 – EHS Management During "Construction Work"*
- *UAE Fire and Life Safety Code 2011*
- *Abu Dhabi Law (4) 1983 and its Executive Regulation*

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