



Abu Dhabi EHSMS Regulatory Framework (AD EHSMS RF)

EHS Regulatory Instrument

Code of Practice

**EHS RI – CoP 44.0 –Traffic Management
and Logistics**

Version 2.0

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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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Abu Dhabi Environment, Health and Safety Center

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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) The following CoP (CoP) applies to all employers within the Emirate of Abu Dhabi. This CoP is designed to incorporate requirements set by 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 traffic and logistics can be prevented or reduced through the introduction of appropriate control measures.
- (c) 'Vehicle' refers to any powered truck, car, van or item of site plant that may be operated by a driver or operator.
- (d) 'Site traffic' refers to all forms of vehicle traffic movements, including powered lift trucks or plant, on site and includes the movements of visitors' vehicles.
- (e) 'Site' refers to a project or facility in which the traffic is being managed, including internal traffic movements such as powered fork lift trucks.

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 management of site traffic and logistics and understand the risks associated with such activities and the control measures are 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 vehicle drivers or operators;
 - (iii) appropriate training on the vehicle they are operating;
 - (iv) appropriate control measures to be followed by pedestrians; and
 - (v) reporting procedure in the event of incidents involving site traffic.
- (d) Employer 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 site traffic management and logistics.
- (e) Employers shall conduct additional retraining whenever a site traffic management or logistics 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 Employer

- (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) site traffic management shall be appropriately planned, organized and supervised;
 - (ii) pedestrian and vehicles routes shall be segregated so far as is reasonably practicable;
 - (iii) pedestrian and vehicle routes shall be clearly marked with signs and barriers;
 - (iv) separate site entrances and exits shall be provided for both vehicles and pedestrians;
 - (v) appropriate speed limits shall be enforced for the facility, taking into account pedestrian movements and the risks from the operations being undertaken.
 - (vi) visitor vehicles movements shall be managed in an appropriate manner for the facility. At a minimum traffic shall be stopped at the site entrance and drivers briefed by a competent person on the site traffic management arrangements;
 - (vii) all arrangements for site traffic management and logistics shall be regularly reviewed and updated where deemed necessary; and
 - (viii) all persons involved in site traffic management and logistics 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 site traffic management and logistics; and
 - (ii) employees shall report any activity or defect relating to site traffic management or logistics which they believe is reasonably foreseeable to endanger their safety or the safety of another person.

3.2 Planning and Assessment

- (a) Employers shall evaluate each site or operation to determine if site traffic management or logistic hazards are present and risks shall be assessed using risk management practices as required by *AD EHSMS RF – Element 02 – Risk Management*.
- (b) Employers shall ensure the following:
- (i) an assessment of the various risks is undertaken and systems of work which are safe to both employees and the public shall be established;
 - (ii) where required by risk or high number of traffic movements, a traffic management plan is prepared where applicable and regularly updated;
 - (iii) that effective procedures and control measures are implemented in order to manage the risks associated with site traffic management and logistics;
 - (iv) that for the Building and Construction Sector the site traffic management and logistics requirements are included in the Pre-Tender Environment, Health and Safety Plan in accordance with the *AD EHS RI – CoP 53.0 – EHS Management During “Construction Work”*;
 - (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”*; and
 - (vi) that for the Industrial Sector the traffic management plan is implemented in accordance with all other CoP’s relevant to the operation and movement of vehicles as part of the employer’s operational activities.

3.3 Site Traffic Management

3.3.1 General Requirements

- (a) Employers shall ensure the following when planning for site traffic movements:
- (i) all vehicle routes are to be planned to minimize the need for vehicles to reverse by introducing one-way-systems wherever reasonably practicable;
 - (ii) road construction and surface quality for traffic routes shall be appropriate for the vehicle types that will use them;
 - (iii) consideration shall be given to vehicle access route widths and the turning radius of bends to ensure clear access for emergency vehicles;
 - (iv) appropriate lighting for roads and pedestrian walkways shall be provided;
 - (v) all vehicles including contractor and visitor vehicles shall be subject to the site rules for vehicles;
 - (vi) arrangements shall be made by the Employer to brief contractor’s and visitor’s drivers and operators on the safety requirements of the site traffic routes;
 - (vii) parking area’s shall be incorporated away from operational requirements;
 - (viii) the design of traffic routes shall be in a manner that avoids blind-spots and tight bends;
 - (ix) traffic routes shall be segregated from pedestrian routes wherever reasonably practicable; and

- (x) engineering control measures shall be given priority over administrative controls when planning traffic management systems.

3.3.2 Traffic Routes

- (a) Employers shall ensure that vehicle traffic routes are appropriate and wide enough for the type of vehicle using them. Where two-way traffic is unavoidable the width of the traffic route shall be wide enough to allow vehicles to pass safely without risk of collision or striking with the other vehicle.
- (b) Employers shall ensure that access for emergency vehicles is maintained at all times. Where routes are blocked or obstructed temporarily due to site activities, alternative arrangements shall be in place for emergency vehicle access.
- (c) Employers shall ensure the following:
 - (i) signage shall be provided to clearly indicate the traffic route, direction of travel and any specific instructions that the driver or operator may need to know;
 - (ii) speed limits shall be determined and appropriate signage shall be displayed at frequent intervals displaying the maximum speed limit. The risk assessment process shall be followed to assess each site specific requirements;
 - (iii) where there is a public interface at the site entrance and/or exit warning signs and traffic control measures shall be provided. In most cases this will involve the use of traffic marshals to direct and oversee traffic arrangements and public safety;
 - (iv) signage shall be checked regularly and maintained so that it can be easily read;
 - (v) multi-language signs shall be provided in appropriate languages of the drivers or operators;
 - (vi) traffic control measures shall be provided at junctions, pedestrian crossing points or other potentially dangerous areas;
 - (vii) arrangements shall be made to check the safe use of traffic routes including:
 - 1) vehicle speed;
 - 2) direction of travel;
 - 3) safe driving practices;
 - 4) compliance with passing/overtaking rules; and
 - 5) adherence to warning signs and traffic signals.
 - (viii) where speed bumps are used they shall be clearly signposted, physically marked and designed so as not to create additional hazards for the type of vehicles using the traffic route; and
 - (ix) traffic routes shall be maintained and the surface shall be kept in good condition. Pot-holes and other wear shall be identified through inspection and remedial action shall be taken.

3.3.3 Pedestrian Routes

- (a) As far as is reasonably practicable, employers shall ensure that designated walkways and routes are provided for pedestrians. Pedestrian walkways shall be clearly marked with signage and where reasonably practicable, protected with baulk timbers or other appropriate barriers.
- (b) Employers shall ensure that pedestrian routes are maintained in good order and kept free from obstruction. Daily checks of each walkway shall be made at the beginning of each shift.
- (c) Employers shall ensure the following:
 - (i) details of the arrangements for pedestrian access and safety shall be included and covered thoroughly in the site environment health and safety induction;
 - (ii) access to high risk vehicle manoeuvring areas is restricted with appropriate barriers and signs in accordance with *AD EHS RI – CoP 22.0 – Barricading of Hazards*;
 - (iii) appropriate crossing points are provided and clearly signposted where pedestrians have to cross vehicle traffic routes;
 - (iv) control measures are implemented to prevent pedestrian taking shortcuts. This may include increased levels of barrier protection or security staff at high risk areas; and
 - (v) pedestrian routes shall be illuminated where out-of-hours or night-time working is required. This arrangement also covers access by night-time security staff.

3.3.4 Traffic Marshals

- (a) Employers shall ensure that appropriately trained traffic marshals are provided on site to oversee traffic control arrangements. Traffic marshals shall be easily identifiable with a high-visibility vest or jacket.
- (b) Employers shall ensure that appropriate shelters are provided for traffic marshals to shade them from the sun, this will include air conditioning for main entrance and exit posts.
- (c) Traffic marshals shall comply with the requirements of *AD EHS RI – CoP 17.0 – Safety Signs and Signals*. Traffic marshals shall ensure that they are in full view of the driver at all times whilst undertaking reversing operations and shall prevent any pedestrian movement behind reversing vehicles.

3.3.5 Vehicle Reversing

- (a) Employers shall ensure so far as reasonably practicable that control measures are implemented to prevent the need for vehicle reversing movements in accordance with Section 3.3.1.
- (b) Where it is not reasonably practicable to prevent the need for vehicle reversing movements employers shall ensure the following:
 - (i) a full and detailed risk assessment shall be undertaken;
 - (ii) the need for reversing shall be minimized where reasonably practicable;

- (iii) audible alarms and flashing amber lights are to be fitted to vehicles which operate automatically when the reverse gear is selected;
- (iv) designated reversing areas are to be provided indicated with appropriate signs;
- (v) pedestrian access to reversing areas is to be restricted with appropriate barriers and warning signs;
- (vi) traffic marshals are to be provided to supervise vehicle reversing movements;
- (vii) vehicle drivers or operators are to be briefed on the reversing arrangements; and
- (viii) appropriate supervision is provided to monitor the effective implementation of the control measures for reversing vehicles.

3.4 Traffic Management Plans

- (a) Employers shall ensure that a site specific 'Traffic Management Plan' is prepared on each site where vehicle(s) are operating. The 'Traffic Management Plan' shall include details on the following:
 - (i) general site description and details of the type of traffic on site;
 - (ii) site specific risk assessment for vehicles on site;
 - (iii) site layout drawing clearly showing traffic routes, pedestrian crossing points, signage location and pedestrian routes;
 - (iv) estimated volumes of each vehicle traffic type and means of monitoring traffic flow rates;
 - (v) details of the traffic control measures at junctions and pedestrian crossing points including arrangements for the segregation of pedestrians and vehicles;
 - (vi) location of designated site parking areas;
 - (vii) details of the person overseeing traffic management arrangements;
 - (viii) details of vehicle driver / operator site rules;
 - (ix) description of the arrangements for visiting drivers; and
 - (x) list of traffic marshals operating on site along with records of their training.
- (b) Employers shall ensure that the 'Traffic Management Plan' is reviewed on a regular basis and updated to ensure it is appropriate for the current arrangements implemented at site.
- (c) Employers shall develop and keep up-to-date detailed emergency procedures to deal with vehicle incidents and vehicle fires that may arise on site. The following emergency situations shall be viewed as foreseeable and detailed in the emergency procedures for the site:
 - (i) vehicle collisions;
 - (ii) vehicle overturning;
 - (iii) vehicle breakdown in high volume traffic area;
 - (iv) pedestrians struck by vehicle; and
 - (v) vehicle fire.

3.5 Logistics

3.5.1 Site Set Up

- (a) Employers shall ensure that prior to the commencement of the main works the site is set up to meet the following requirements:
- (i) establishment of the site perimeter fencing;
 - (ii) provision of welfare facilities to meet the requirements of the anticipated workforce numbers when work commences;
 - (iii) establishment of site offices; and
 - (iv) provision of traffic routes, pedestrian routes, delivery areas and storage areas.

3.5.2 Storage Areas

- (a) Employers shall ensure that appropriate storage areas are provided for materials that can be easily accessed and do not present a danger to employees.
- (b) Employers shall ensure the following;
- (i) a concrete hard-standing area is provided for the storage of palletized materials;
 - (ii) palletized materials are stacked no more than 3 pallets high or in accordance with manufacturers recommendations (whichever is less);
 - (iii) appropriate space is allowed around storage areas for employees to move around safely without the risk of being trapped between stacked materials and walls or barriers;
 - (iv) storage areas are defined using barriers and signs;
 - (v) arrangements are made to ensure the safe loading and unloading of materials to and from storage areas; and
 - (vi) storage areas are maintained in good order at all times.

3.5.3 Material Deliveries and Collection

- (a) Employers shall ensure that arrangements are in place to ensure the controlled or organised delivery and collection of materials.
- (b) Delivery / collection drivers shall be subject to EHS briefing / induction with regards to traffic management. This shall include site layout and designated route, speed restrictions, site traffic requirements, loading / unloading requirements, any specific risks and any additional relevant information.
- (c) Employers shall establish appropriate dedicated vehicle parking areas for delivery / collection vehicles. Parked vehicles shall be turned off with hand brakes on.
- (d) Employers shall ensure the following:
- (i) arrangements are in place to ensure all delivery / collection drivers report to security upon arrival to site;
 - (ii) material delivery / collections is made at designated storage / collection areas;
 - (iii) materials can be unloaded / loaded safely by mechanical means where appropriate in safety and without risk to others on site;

- (iv) those involved in material handling are trained in the site delivery procedures;
- (v) vehicle loads are checked prior to entry to site to ensure that they are safe;
- (vi) vehicle loads are checked and approved by both the employer and the driver following loading on site prior to release of the vehicle for exit from site;
- (vii) employers shall implement safe loading and dispatch procedures as required according to assessed risk; and
- (viii) coupling / uncoupling shall be undertaken in an appropriate dedicated area. Employer shall assume responsibility for the safe coupling / uncoupling when undertaken on site. Vehicle operators shall be competent in coupling / uncoupling procedures.

3.5.4 Journey Management Plan

- (a) A Journey Management Plan shall be developed and implemented for employers involved in off-site vehicle movements related to operational activities including collection, delivery, client meetings etc. This does not apply to commuting journeys to and from the workplace at the beginning and end of the shift.
- (b) The Journey Management Plan shall include the following principles:
 - (i) a journey by road shall be necessary and business related;
 - (ii) journey plan shall consider the factors like selection of route, timings, location etc;
 - (iii) a log of the journey including the vehicle used, the driver and any passengers, the time out, destination, expected arrival and return times shall be recorded. An appropriate log shall be maintained on site;
 - (iv) driver shall inform the employer upon arrival at destination;
 - (v) driver shall inform the employer upon return and sign log as completion of journey;
 - (vi) should the driver be more than one hour late in submitting relevant reports (at destination or on return) then the employer shall take necessary steps to contact driver and ensure his safety;
 - (vii) driver shall inform the employer of any unexpected delays (traffic jams); and
 - (viii) the employer shall have in place appropriate response procedures for breakdowns, incidents etc.

3.6 Inspection of Site Traffic Management and Logistics Arrangements

3.6.1 General Inspections

- (a) Employers shall ensure that routine EHS inspections carried out on site cover the site traffic management and site logistics arrangements.
- (b) Employers shall record inspections and identify areas of non-compliance against this CoP. Where non-compliances are identified a corrective action plan shall be developed to deal with their timely close-out.

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 17.0 – Safety Signage and Signals*
- *AD EHS RI – CoP 22.0 – Barricading of Hazards*
- *AD EHS RI – CoP 53.0 – EHS Management During “Construction Work”*
- *AD EHS RI – CoP 54.0 – Waste Management*
- *Abu Dhabi Law (4) 1983 and its Executive Regulation*

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