



Abu Dhabi EHSMS Regulatory Framework (AD EHSMS RF)

EHS Regulatory Instrument

Code of Practice

**EHS RI - CoP 21.0 – Permit to Work
Systems**

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 AD EHS Center as the 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; and
 - 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 UAE and Abu Dhabi regulatory authorities. If requirements of this document conflict with requirements set by another regulatory authority, employers are required to follow the more stringent requirement.
- (b) A permit to work (PTW) system is a formal recorded process used to control work which is identified as potentially hazardous. It is also a means of communication between site/installation management, plant supervisors and operators and those who carry out the hazardous work. Essential features of PTW systems include:
 - (i) clear identification of who may authorize particular jobs (and any limits to their authority) and who is responsible for specifying the necessary precautions;
 - (ii) training and instruction in the issue, use and closure of permits;
 - (iii) monitoring and auditing to ensure that the system works as intended;
 - (iv) clear identification of the types of work considered hazardous; and
 - (v) clear and standardized identification of tasks, risk assessments, permitted task duration and supplemental or simultaneous activity and control measures.
- (c) The PTW does not, in itself, make the job safe but relies for effectiveness on specified personnel implementing its requirements conscientiously under competent supervision. It is therefore essential that anyone undertaking hazardous work demonstrates that they have followed an appropriate risk assessment process to identify and minimize any hazard associated with the proposed work.

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) Employers shall ensure that all relevant parties are competent to undertake their role within the PTW Procedure.
- (c) Training shall be developed that is specific to the entity and defines the roles and responsibilities of each of the prescribed roles in Section 3.
- (d) Further to role specific training, entities shall ensure that all staff has been given awareness training on the requirements of the PTW procedure and how this affects their role.
- (e) Training shall be competency-based and include:
 - (i) overview of the PTW system;
 - (ii) legal and entity requirements;

- (iii) responsibilities and authorities under the PTW system;
- (iv) documentation requirements;
- (v) how to close Permits;
- (vi) PTW conditions eg. validity, required signatures, precautions etc; and
- (vii) emergency procedures.

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 ensure that all activities requiring a PTW are identified and managed in a safe manner.
- (c) Employer shall ensure that all persons involved with activities that require a PTW, are competent.
- (d) Employers establish a PTW system for non-routine activities.

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 ensure they follow all the rules and regulation set by the employer with regards to PTW.
- (c) Employees shall ensure that they immediately report any hazard or information that may affect, adversely or otherwise, the works being undertaken.

3.2 Planning and Assessment

- (a) Employers shall evaluate each site or operation to determine if hazards are present that require the additional control of a PTW and the workplace shall be assessed using risk management practices as required by *AD EHSMS RF – Element 02 – Risk Management.*
- (a) Employers shall ensure the following:
 - (i) an assessment of the various risks is undertaken and systems of work are established which are safe to all parties involved or affected including the public;

- (ii) that effective procedures and control measures are implemented in order to manage activities safely and without risk to health;
- (iii) that for the Building and Construction Sector the management of PTW requirements 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
- (iv) 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 When is a Permit to Work Required?

- (a) PTW systems shall be considered whenever it is intended to carry out work which may adversely affect the safety of personnel, plant or the environment. However, PTW systems shall not be applied to all activities, as experience has shown that their overall effectiveness may be weakened. Permits-to-work are not normally required for controlling general visitors to site or routine maintenance tasks in non-hazardous areas.
- (b) PTW systems are normally considered most appropriate to:
 - (i) non-production work (eg. maintenance, repair, inspection, testing, alteration, construction, dismantling, adaptation, modification, cleaning etc);
 - (ii) non-routine operations;
 - (iii) high risk activities;
 - (iv) where two or more individuals or groups need to co-ordinate activities;
 - (v) where there is a transfer of work and responsibilities from one group to another; and
 - (vi) examples of hazardous activities that shall be controlled by a PTW system are described in Table 1. Note that this is not an exclusive list of all activities that can be included in a PTW system; entities shall identify activities that require a PTW through robust risk assessment in line with *AD EHSMS RF – Element 02 – Risk Management*.

Activity	Definition	Examples
Hot Work	<ul style="list-style-type: none"> • Hot Work where a source of ignition is present or where non- intrinsically safe equipment is being used and there is a risk of fire or explosion • Ionizing / Non-Ionizing Radiation 	<ul style="list-style-type: none"> • Welding, cutting, grinding • Use of Explosive devices • Any heat or spark producing work • Using of ionizing and non-ionizing radiation or radioactive sources
Confined Space	<ul style="list-style-type: none"> • Work in a Confined Space 	<ul style="list-style-type: none"> • Personnel entry into a confined space
Weather	<ul style="list-style-type: none"> • Working in Extremes of Temperature 	<ul style="list-style-type: none"> • Work in very hot conditions
Cold Work	<ul style="list-style-type: none"> • Work that could affect the safety of personnel, equipment or risk to the environment 	<ul style="list-style-type: none"> • Ground disturbance / Excavation / trenching

	<ul style="list-style-type: none"> Any work that does not include a source of ignition 	<ul style="list-style-type: none"> Isolation of plant and equipment Working at heights Electrical work Scaffolding (erection and dismantling) Pressure testing Removal / isolation or relocation of safety critical equipment
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Table 1 – Examples of Hazardous Activities

3.4 Permit to Work Procedure

Employers shall develop a PTW procedure, specific to their undertakings, which considers the following requirements.

- (a) Ensures the appropriate authorization of designated work. This may be work of certain types, or work of any type within certain designated areas other than normal operations.
- (b) Identifies clear roles and responsibilities for all key people involved in the issue and control of a permit.
- (c) Identifies competency requirements for all roles within the PTW procedure.
- (d) Defines the types of work, relevant to the organization that will require a PTW.
- (e) PTW documentation shall be subject to a document control process including:
 - (i) master control sheets;
 - (ii) unique reference numbers;
 - (iii) version control; and
 - (iv) controlled storage of completed permits and associated documentation (eg. Risk Assessments) according to EHSMS regulatory requirements.
- (f) PTW documentation shall include supporting procedures, PTW forms and certificates, such as isolations or clearances, risk assessments etc.
- (g) PTW documentation shall clearly identify:
 - (i) employees undertaking the work;
 - (ii) the nature and extent of the job;
 - (iii) hazards identified through risk assessment process;
 - (iv) any limitations on the extent of the work;
 - (v) the timeframe during which the job may be carried out; and

- (vi) specifies the control measures implemented, including safe isolation from potential risks such as hazardous materials, electricity and other energy forms.
- (h) Ensures that the person in direct charge of a unit, plant or installation is aware of all hazardous work being done there.
- (i) Provides not only a system of continuous control, but also a record showing that the nature of the work and the precautions needed have been checked by an appropriate person or people.
- (j) Clearly specifies the appropriate display of permits for all relevant parties.
- (k) Provides a procedure for times when work has to be suspended.
- (l) Includes the control of work activities that may interact or conflict one another.
- (m) Includes a formal procedure for use when a permit is required for a period longer than one shift or 12 hours whichever is the lesser.
- (n) Includes a formal hand-back procedure to ensure that the works are completed and the area / plant affected by the work is in a safe condition and ready for reinstatement.
- (o) Provides a process for change, including the evaluation of change on other planned conflicting activity, a determination of when hazards need to be reassessed, and a means for controlled communication of change.

3.5 Specific Roles and Responsibilities

- (a) The procedure shall identify clear roles and responsibilities for all key stakeholders within the procedure. As a minimum the following roles and responsibilities shall be identified and allocated to individuals within the entity. Each of the roles identified shall be independent and cannot be held by the same person. Each role shall be allocated to named individuals and shall be done formally in writing.

3.5.1 Permit Control Manager

- (a) Employers shall nominate a competent person to be the Permit Control Manager.
- (b) The Permit Control Manager is the senior manager for the building/facility/project/plant and is ultimately responsible for the PTW system. The permit Control Manager shall ensure that a competent Authorized Person is appointed to issue and manage Permits, including:
 - (i) shall be a senior manager with appropriate competency and authority to ensure that an appropriate PTW system is introduced;
 - (ii) shall ensure that all relevant employees have undertaking appropriate training, as per Section 2 of this document;
 - (iii) shall ensure that appropriate procedures are established and maintained for all work done under the PTW system;
 - (iv) shall have the necessary authority to control the operations being undertaken and have the relevant competence on the facility, site or undertakings;

- (v) shall ensure that arrangements are made for the workforce to be made aware of the permits and systems, and trained in their operation;
- (vi) shall ensure that the PTW system is monitored to ensure that it is effective and correctly applied;
- (vii) shall ensure appropriate control measures are implemented for any emergency situations that may arise following non conformity with the PTW;
- (viii) shall ensure that the PTW system is audited and reviewed; and
- (ix) shall allocate appropriate resources to enable the PTW system to be implemented.

3.5.2 Authorized Person

- (a) The Authorized Person (AP) shall be given the authority to issue and sign permits on behalf of the employer. It is essential that the AP has appropriate knowledge about the hazards associated with the relevant activity to allow them to identify those hazards and control measures (eg. isolations) correctly. Including:
 - (i) shall ensure that all foreseeable hazards associated with the proposed job have been identified and appropriately assessed;
 - (ii) shall ensure that all steps necessary to ensure the safety of the site or installation have been identified;
 - (iii) shall ensure the work site has been examined, and all precautions specified to be taken before work commences (including isolations) have in fact been taken and shall remain effective while the permit remains in force;
 - (iv) shall verify that the permit holder, including further staff tasked with undertaking works under the PTW, have appropriate competence to undertake the role and fully understand the risks;
 - (v) shall ensure that the permit holder is aware of the precautions taken, any additional ones which are to be taken, particular equipment to be used or worn, and any other procedures which are to be followed;
 - (vi) shall ensure that any work activities that may conflict with one another are clearly identified and conflicts are avoided or precautions included on the permit (eg. use of welding shields);
 - (vii) shall ensure that all relevant people are aware of the permit's duration, and action to be taken if the work is suspended;
 - (viii) shall authorizing, by signature, the work to proceed following confirmation that all control measures are implemented and have been signed off;
 - (ix) shall ensure that copies of all issued permits are displayed at an appropriate location and in a consistent arrangement so that site personnel can readily see and check which equipment is under maintenance and not available for operation;
 - (x) shall undertake ongoing inspections of the PTW to ensure risk control measures are being maintained;
 - (xi) shall ensure that the work site is examined at any time when work is suspended and before it is restarted, and finally when the work is completed to ensure that it is in a safe condition;

- (xii) shall ensure that the shift handover procedure is complied with;
- (xiii) shall ensure that the worksite is examined on completion of the works and the PTW is correctly closed and the relevant persons informed; and
- (xiv) shall ensure appropriate records of all permits and master controls sheet are maintained.

3.5.3 Permit Holder

- (a) The Permit Holder is the competent person who has requested the permit to be issued and shall be fully responsible for the works whilst they are being undertaken. The permit holder and AP (permit issuer) shall not be the same person Including:
 - (i) shall ensure that they and the people working with them understand the operation of (and the consequences of non-compliance with) the PTW systems applicable to the areas in which they are responsible for work;
 - (ii) shall ensure any necessary information, instruction or training is given to users to ensure that they understand the PTW systems and the specific precautions required for their work;
 - (iii) shall ensure that the AP (permit issuer) and permit users fully understand their responsibilities under the PTW system;
 - (iv) shall ensure that the conditions and precautions specified in the permits are fully understood, implemented and effectively monitored;
 - (v) shall immediately stop / suspend work if conditions require or if the PTW requires change;
 - (vi) shall communicate effectively with all parties during the operation of the Permit; and
 - (vii) shall ensure that all parties are aware of the completion of the works and the permit is correctly closed with the AP.

3.5.4 Work Party

- (a) The Work Party who undertakes the work shall comply with the requirements of the PTW at all times including:
 - (i) shall understand the scope of work and the control measures implemented;
 - (ii) shall participate in the development or review of the risk assessment;
 - (iii) shall ensure that all control measures defined in the PTW are strictly followed;
 - (iv) Shall not interfere with the work of their colleagues and shall adhere to the roles and responsibilities assigned under the PTW;
 - (v) shall cease work and inform the Permit Holder when there is a breach of the PTW conditions; and
 - (vi) shall leave a clean and safe work site.

3.6 Scope of a Permit to Work

- (a) There shall be a clearly defined and understood scope of work and validity period.
- (b) A PTW shall be raised to cover specific work activities. Each PTW shall however only cover one work activity.
- (c) The work conditions, boundaries and scope of work shall be clearly defined on the PTW form, including the start and finish time of the proposed work.
- (d) The period for completion of the work shall not exceed the maximum duration of the PTW as defined by the start and finish time. The timeframes for a PTW shall not exceed 12 hours or one working shift, whichever is the lesser timeframe.
- (e) For the work to extend beyond the stated finish time the PTW shall be revalidated (including re-approval by the person issuing the PTW) or a new PTW issued.
- (f) The PTW system shall only allow for limited extensions or revalidations rather than continuously extending previous PTW.

3.7 Hazard Identification

- (a) All hazards shall be identified and the risk assessed as per the requirements of *AD EHSMS RF – Element 02 – Risk Management*.
- (b) At the planning stage an appropriate formal risk assessment shall be undertaken to identify the hazards and assess the risks associated with the scope of work.
- (c) The risk assessment shall identify any:
 - (i) concurrent conflicting activity hazards and their control measures;
 - (ii) workplace environmental monitoring (eg. confined space, hot work, etc); and
 - (iii) control measures required for work that extends beyond a single shift.
- (c) The risk assessment shall examine external influencing hazards and risks eg. hazards that exist outside of the immediate scope of the work but may influence the safe completion of the work and example of this could be divers working below a platform – the risk assessment shall consider activities on the platform which may affect the diver's safety (lifting, over the side work etc).

3.8 Control Measures Implemented

- (a) All necessary control measures for the safe completion of the work shall be identified on the PTW form and its associated supporting documentation.
- (b) The Permit Holder shall confirm or verify that all control measures are implemented before the commencement of work.

- (c) In situations where there is a requirement for EHS critical equipment to be removed from service (eg. components of a fire safety system), the PTW shall identify the control measures required during the isolation of this equipment. The Authorized Person or delegate shall notify:
 - (i) other potentially affected parties on the facility; and
 - (ii) any relevant external parties.

3.9 Simultaneous Conflicting Activities

- (a) Workplaces shall have control measures implemented to control risks associated with concurrent or interacting activities. This process shall include the identification and management of:
 - (i) interfaces between working parties; and
 - (ii) interfaces between contractors and the entity.
- (b) Where a number of Permits to Work are in operation, the Authorized Person shall designate a competent person to ensure that the interfaces are appropriately managed.

3.10 Communication

- (a) Permit Holders shall communicate the requirements of the PTW to the members of the Work Party.
- (b) Work shall not proceed until all personnel working on the job confirm, by signature, their understanding of the PTW requirements.
- (c) The original PTW form and its associated documentation shall be displayed at the worksite.
- (d) A duplicate of all 'live' PTW forms shall be maintained in a central location (eg. control room, supervisor's office, permit office).
- (g) Where work continues over more than one shift, the PTW shall be revalidated (including re-approval by the person issuing the PTW) or a new PTW issued.
- (h) Revalidation shall be subject to site inspection confirming the implemented control measures are still appropriate.
- (i) A formal handover process shall be implemented to ensure:
 - (i) effective communication of all relevant work details and control measures between off-going and on-coming shifts; and
 - (ii) handover of Permit Authority, Permit Holder and Work Party responsibilities.
- (j) The communication of all necessary information shall be in a common language of understanding.

3.11 Close Out

- (a) When work is complete or there is a requirement to close the PTW:
 - (i) the Permit Holder shall ensure the work site is left in a clean and safe state and where required a process is implemented to manage any follow-up work;
 - (ii) the Permit Holder shall sign the 'hand-back' section of the PTW form; and
 - (iii) the AP (permit issuer) shall initiate the removal of control measures originally installed for the work to take place.
- (b) When the work environment has been returned to a state of readiness for return to normal duties, the AP (permit issuer) shall sign the 'permit closure' section of the PTW form on both original and duplicate copy.

3.12 Verification of Isolations

- (a) All isolations shall be in accordance with *AD EHS RI – CoP 24.0 – Lock-out and Tag-out (Isolation)*.
- (b) All isolations shall be verified as being implemented by the Authorized Person before authorization of the PTW.
- (c) Isolation certificates shall be included to record and communicate that isolations, checks or other tests have been carried out by an AP (permit issuer). Certificates of Isolation shall be attached to the PTW and entered into an isolations register. Certificates typically cover:
 - (i) electrical isolation / mechanical isolation;
 - (ii) ground disturbance;
 - (iii) gas testing; and
 - (iv) ionizing radiation.
- (d) Certificates shall only be signed after an authorized and competent person verifies that isolations and other required control measures are implemented and the Certificate cross referenced to the controlling PTW.
- (e) The AP (permit issuer) shall confirm that all defined control measures have been established and authorized signatories have fully implemented any Permit/Certificate requirements.
- (f) The Permit Holder shall confirm that the workplace is safe to commence work.
- (g) Certificates are documents that define preparations that are additional to the prime PTW requirements and are required for work to proceed. They do not, by themselves, authorize work to proceed. They cannot stand-alone and shall always be accompanied by a covering PTW.

3.13 Management of Change

- (a) Where the work scope or circumstances change eg. conflicts identified during the work activity, work shall immediately cease and the PTW referred back to AP (permit issuer).
- (b) Where the scope of work or circumstances change the PTW shall be revoked and a new permit issued with the new control measures identified on it.
- (c) If work covered by a PTW proceeds from one work shift to the next, the PTW form shall be re-validated with the new (on-coming shift) AP (permit issuer) confirming that it is safe to recommence work.
- (d) Both the Permit Holder and AP (permit issuer) shall sign-off onto the re-validated PTW form and the new Work Party briefed.

3.14 Emergency Situations

- (a) In any emergency situation, all Permits to Work shall be suspended until the facility has returned to its normal status.
- (b) All Permits to Work shall be revalidated or re-issued prior to work resuming.

4. Record Keeping

- (a) Employers shall ensure records of all permits and master control sheets are maintained for a period of at least 1 year.

5. References

- *AD EHSMS RF – Element 01 – Roles, Responsibilities and Self-Regulation*
- *AD EHSMS RF – Element 02 – Risk Management*
- *AD EHS RI – CoP 24.0 – Lock-out and Tag-out (Isolation)*
- *AD EHS RI – CoP 53.0 – EHS Management during “Construction Work”*
- *HSG 250 – Guidance on Permit to Work Systems*

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