EXPRO National Manual for Projects Management

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Project Environmental Training and Awareness Procedure

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Table of Contents

1.0 PURPOSE

This procedure describes the project specific environmental training programs available to employees, contractor and subcontractor personnel and others to help ensure they are properly trained to carry out their assigned duties in a manner consistent with the environmental requirements applicable to their assigned Projects.

Compliance with this procedure demonstrates conformance with the International Organization for Standardization (ISO) 14001 Environmental Management System (EMS) Standard 4.4.2: *Competence, Training and Awareness* (as shown below):

2.0 SCOPE

The scope of this procedure applies to all works performed under all Government Construction Contracts executed throughout the Kingdom of Saudi Arabia.

3.0 DEFINITIONS

Definitions	Description
EA	Environmental Awareness
CBT	Computer Based Training (Can be PowerPoint)
CEC	Construction Environmental Coordinator
CECP	Construction Environmental Control Plan
HSSE	Health Safety Security and Environment
ILT	Instructor Led Training
PEL	Project Environmental Lead
SDS	Safety Data Sheets
SME	Subject Matter Expert
SPR	Supervisor Required Training
ISO	International Organization for Standardization
EMS	Environmental Management System
HSSE	Health, Safety, Security and Environment

4.0 REFERENCES

- International Organization for Standardization (ISO) 14001 Environmental Management System (EMS) Standard 4.4.2

5.0 RESPONSIBILITIES

The organization shall ensure that any person(s) performing tasks for it or on its behalf that have the potential to cause a significant environmental impact(s) identified by the organization is (are) competent based on appropriate education, training or experience and shall retain associated records.

For this procedure, the Construction Environmental Coordinator (CEC) and the Project Environmental Lead (PEL) may be the Health, Safety, Security and Environment (HSSE) Manager or a delegate. This person shall have the necessary experience, qualifications and be a Subject Matter Expert (SME) to train personnel.

The organization shall identify training needs associated with its environmental aspects and as required in its environmental management system. It shall provide training or take other action to meet these needs, and shall retain associated records.

The organization shall establish, implement and maintain a procedure(s) to ensure persons working for it or on its behalf aware of:

- The importance of conformity with the environmental policy and procedures and with the requirements of the environmental management system.

- The significant environmental aspects and related actual or potential impacts associated with their work, and the environmental benefits of improved personal performance.
- Their roles and responsibilities in achieving conformity with the requirements of the environmental management system.
- The potential consequences of departure from specified procedures.

6.0 PROCESS

The following Work Process addresses the development and implementation of an EA Training program:

Step 1 – Regulatory Requirements Identification and Review

Review applicable regulations to determine specific training requirements applicable to the project. Ensure that all areas of training specifically identified by regulations are included in the EA Training Program.

Step 2 – Develop an EA Training Program

The PEL is responsible for developing an EA Training Program in conjunction with the development of the Project specific Construction Environmental Control Plan (CECP). The description of the training program must be included in the CECP and contain the following information:

- Description of the Purpose and Scope of the EA Training.
- Describe the purpose and scope of the training, including a description of who should be trained and why the training is needed. EA training should be required for all personnel at the managed Project, including but not limited to employees, subcontractors, vendors and visitors.
- Description of Roles and Responsibilities for EA Training.
- Describe the roles and responsibilities of ES personnel for EA Training. Responsibilities of personnel, subcontractors, vendors and visitors shall be clearly identified.
- Outline of the EA Training Program (described below).
- EA Training Supporting Documentation (described below).

Step 3 – Develop and EA Training Outline

EA training is Project specific and therefore the topics included in the EA Training Outline will vary from Project to Project. However, a core level of information and situations should always be addressed in each EA training course. In general, the following main topics are included in the EA Training Outline:

- Contractors Environmental Compliance Policy.
- Personal Responsibility.
- Compliance with Environmental Requirements.
- Site Boundary Access, Limits, and Exclusion Zones.
- Housekeeping.
- Site Walk-Downs.
- Handling Hazardous Materials/Waste Management.
- Spill Prevention, Response, and Notification.
- Unanticipated Discoveries.
- Maintaining Environmental Controls.
- Disciplinary Actions for Noncompliance.
- Sample EA Training Outlines for field personnel/new hires (basic EA training) and supervisors are provided as Attachment 3 - Basic EA Training Outline (Sample) and Attachment 4 - Supervisor EA Training Outline (Sample).
- Drinking water management.
- Septic tank requirements.
- Air quality (Noise, dust, vapours).
- Pest and wildlife management.

Step 4 – Develop Supporting Documentation

The types of documentation developed in support of an EA Training Program are Project specific and will depend on the environmental issues associated with the Project. At a minimum, attendance rosters shall

be completed for each formal EA training session. The attendance roster should contain the following information:

- Topic(s) discussed.
- Date and locations of training.
- Name and title of training instructor.
- Names and titles of attendees.
- Employers of attendees.

A sample Training Roster is provided as attachment 2 - Training Roster Template (Sample) Additional documentation required may include maps highlighting locations of sensitive resources, hazardous material/waste location maps, training completion certificates, pre-and post-tests, and/or other documentation.

Step 5 – Implement Training Program

The CEC is responsible for implementing the Training Program. The CEC conducts EA Training and ensures that it is being implemented. In addition, the CEC is responsible for identifying any areas where additional training is needed.

Step 6 – Develop and Implement Additional Training as Required

As mentioned in Step 5, the CEC will be responsible for identifying areas where additional training is required or identifying when new requirements are issued that call for additional training. When additional training is needed, the CEC will develop Tool Box Training Sessions or Special Training Sessions. The PEL will assist the CEC in the development of training, if required.

Topics typical of Toolbox Training Sessions or Special Training Sessions include, but are not limited to:

Tool Box

- Site specific requirements for hazardous materials management.
- Mitigation measures for an incident that has occurred on the project site or at another location/facility applicable to the Project.
- Waste management requirements (e.g., segregation of wastes, accumulation areas, containers, labels).
- Plans for waste minimization (e.g., elimination, reduction, recycling).
- Site specific environmental resource protection (e.g., biological, cultural).
- Proper installation and maintenance of erosion and sediment controls.
- Environmental punch-lists to complete prior to work close-out or demobilization.

Special Training

- Walk-downs of selected project areas for reviewing environmental compliance issues.
- Spill response team responsibilities.
- Subcontractor responsibilities regarding installation and maintenance of environmental controls.

A Training Roster is also required for each Tool Box and/or Special Training Session. A Training Roster like the one used for general EA training can be used.

Step 7 – Recordkeeping

Records associated with training for a specific Project shall be maintained for a minimum of three (3) years after the completion of the Project or as otherwise required by regulations, permits or the Customer.

Records to be maintained include but are not limited to:

- EA Training Outline.
- Tool Box Training Outlines.
- Special Training Outlines.
- Training Rosters.

7.0 PROJECT SPECIFIC TRAINING

Project-specific environmental awareness training is mandatory for all Project site personnel, including subcontractor and vendors, and customer representatives working (as warranted) on site. This training is typically combined with new-hire HSSE orientation training for all Project personnel. Such training includes details related to a wide range of environmental issues potentially affecting project construction and startup/commissioning activities.

By its very nature, Project-level environmental training is “project specific” and includes a discussion of Contractor’s environmental policies and procedures, descriptions general best management practices for environmental protection, and any unique environmental requirements, site conditions, and mitigation measures applicable to a particular site.

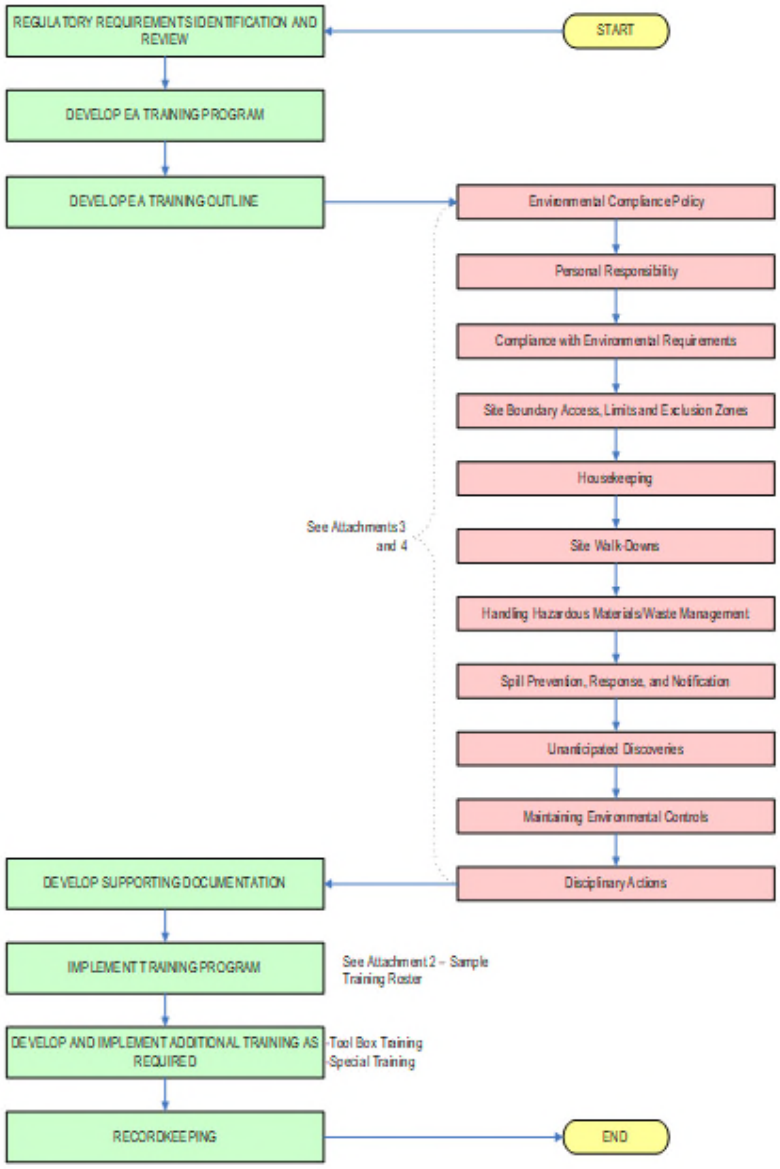
8.0 RECORDS RETENTION

Personnel training records and transcripts associated with this procedure will be retained in accordance with Contractor requirements and local laws.

9.0 ATTACHMENTS

1. Construction Environmental Awareness Training Flow Diagram
2. EPM-KSE-TP-000001 - Training Roster Template
3. Basic EA Training Outline
4. Supervisor EA Training Outline
5. Environmental Training Index

Attachment 1 - Construction Environmental Awareness Training Flow Diagram



Attachment 2 - EPM-KSE-TP-000001 - Training Roster Template

Project Name: _____

Training topic(s): _____

Location of training: _____ Date: _____

Training instructor: _____

No.	Employee Name	Company	Title
1			
2			
3			
4			
5			
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Comments: _____

Attachment 3 - Basic EA Training Outline

OUTLINE OF INSTRUCTION	INSTRUCTOR'S NOTES and REMARKS
A. *Environmental Compliance Policy* • *Commitment to completing all jobs in accordance with the project requirements and in an environmentally responsible manner*	*Maintains Contractors positive reputation* *Reduces chances of negative public perception* *Allow project to move forward on schedule and within budget*
B. *Personal Responsibility* • *Professionalism* • *Self-monitoring*	*Recognize personal ability to impact project success.* *"Do the right thing" philosophy*
C. *Laws and Regulations* • *National* • *Region* • *Local*	*Regulations have conditions for specific activities associated with construction or the nature of the project (e.g., power, pipeline). Deviations from regulations are not allowed without prior approval from the responsible agency. Provide project specific examples.*
D. *Permits/Consents* • *National* • *Region* • *Local*	*Permits have been issued for the Project with specific requirements. These can be restrictive and deviations from these permits are not allowed without prior approval from the issuing agency.* *Provide project specific examples.*
E. ***Guidelines, Policies, and Procedures*** • *Customer* • *Contractor*	*Customer policies referenced in the prime contract.* *Contractor policies and plans (e.g., CECP) applicable to the jobsite.*
F. *Site boundaries and access* • *Personnel are required to stay within approved project boundary limits* • *The project site may only be entered at approved access locations* • *Disregarding site limits may be considered trespassing*	*Review drawings showing site limits, limits of disturbance, environmentally sensitive areas, etc.* *Environmental resources (e.g., biological, archeological) or contaminated areas are often not mapped outside of project boundaries, however they may exist.*
G. *Exclusion Zones*	*Show drawings and explain how these areas are marked on the project (e.g., signage, flagging, fencing).*

OUTLINE OF INSTRUCTION	INSTRUCTOR'S NOTES and REMARKS
• *Zone(s) within or adjacent to the project site that are off limits to project personnel and equipment*	
H. Housekeeping • *Regularly collect trash and debris and dispose of by approved method(s) and in appropriate container(s)* • *Store and use hazardous materials away from sensitive resources* • *Reinstall/repair erosion controls removed or damaged*	*Refer to Project's CECP for approved methods.*
I. Handling Hazardous Materials/Waste • *Know the applicable health and environmental hazards before starting work* • *Take precautions to prevent spills* • *Keep materials in original containers whenever possible* • *Close containers when not in use* • *Store materials and waste only in designated areas* • *Never dispose of containers in a dumpster unless the container is empty.*	*SDS contains information for proper use, handling, storage, and disposal requirements.* *Closed means sealed and secured.* *Reduce, reuse, and recycle when possible.* *An example would be NOT to use plastic containers to store flammable materials (e.g., diesel, gasoline).* *Empty means completely not partially empty.*
J. Spill Prevention, Response, and Notification • *Prior to starting work, ensure materials for the cleanup of any spills are available nearby* • *When safely possible, contain (i.e., dike or berm) spills to minimized affected area* • *Immediately report spills, either created or observed, to your supervisor*	*Discuss hazards during pre-task planning.* *Containing could be done with shovels or with heavy equipment.* *Immediate means "now"; often there are specified time limits when notifications must occur.*
K. Unanticipated Discoveries • *If a construction activity uncovers/discovers any unknown structures, containers, discolored or foul-smelling soils or*	*At existing facilities, this typically means contaminated soils and groundwater.* *At greenfield locations, this may involve cultural/archeological discoveries and/or a potential crime scene.*

OUTLINE OF INSTRUCTION	INSTRUCTOR'S NOTES and REMARKS
groundwater, unexploded ordnance, cultural resources, or suspected human remains, stop all work in the immediate vicinity of the discovery and contact supervisory personne	
L. Maintaining Environmental Controls • *Inspect environmental controls regularly* • *Replace or repair missing/damaged controls* • *Do not remove controls unless authorized to do so* • *Replace removed or damaged controls at completion of task, but no later than end of workday*	*The controls have been installed for a reason that may not be easily observable, but are necessary and need to be replaced or repaired.* *When in doubt ask.*
M. Disciplinary Actions for Noncompliance • *Failure to comply with the information presented in the EA training creates personal and corporate liability risk(s)* • *Disciplinary actions may result from serious and/or repeated disregard of environmental requirements*	*May cause serious impacts to environmental resources.* *May be in violation of laws, regulations, and permits/consents that govern the project.* *Not a threat, a reminder to conduct work in a professional manner.*

Attachment 4 - Supervisor EA Training Outline

OUTLINE OF INSTRUCTION	INSTRUCTOR'S NOTES and REMARKS
A. *Environmental Compliance Policy* • *Commitment to protecting and sustaining the human environment and natural resources for future generations is inherent in the mission of "working closely with our customers, key suppliers, and communities to help improve the standard of living and quality of life."*	*Site supervision will lead by example, modeling the behavior expected from all employees performing work.* *Supervisors not only have responsibility for their own actions, but also for the workforce they supervise.*
B. *Regulations, Permits, and Requirements* • *Environmental requirements for construction are contained in various environmental regulations and permits/consents, customer policies and procedures, and construction specifications, plans (e.g., CECP), and drawings.*	*Understand project plans, policies, procedures, and specifications (e.g., CECP, HSSE Execution Plan). This information is available from the CEC.* *Do not allow deviations from regulatory and permitted conditions, approved plans, customer commitments, or Contractor policies.* *Failure to comply with environmental requirements could result in issued violations, payment of fines, work shutdowns, and termination of employment.*
C. *Housekeeping* • *Plan for the adequate disposal of scrap, waste, and surplus materials.* • *Segregate reusable materials and recyclable materials.* • *Have personnel regularly police/inspect normal work areas and ancillary areas (e.g., parking lots, maintenance areas, laydown areas), remove trash/debris and check for spills.*	*Plan your work and work your plan.* *Complete work plans include site preparation and proper cleanup.*
D. *Site Walk-Downs* • *During walk-downs of work areas and ancillary locations, supervisors will consider the environmental compliance requirements, monitor for compliance, and initiate corrective action as necessary.*	*Pay attention to approved work limits.* *Identify improperly stored hazardous materials and/or wastes and take correction action.* *Identify locations where erosion and sediment controls are needed or require maintenance.* *Check equipment for evidence of leaks.*
E. *Managing Hazardous Materials and Waste*	*Plan your work and work your plan.*

OUTLINE OF INSTRUCTION	INSTRUCTOR'S NOTES and REMARKS
• *Know the potential hazards prior to beginning work assignments.* • *Consider how activities may create environmental impacts and develop ways to prevent/mitigate those impacts prior to starting work.* • *Ensure containers are available to dispose of wastes generated because of assigned tasks.* • *Containers must be the proper size, made of compatible material, and properly labeled. Containers should not be allowed to overfill.* • *Containers are to be closed when not used.* • *Coordinate with the CEC to determine an appropriate storage location for hazardous materials and waste containers.* • *Ensure hazardous materials and wastes are segregated and stored in accordance with the SDS requirements, project-specific plans, and procedures stated in the CECP.* • *Know and understand the requirements of, Hazard Communications Procedure.*	*Ensure the equipment is available to properly handle containers.* *Plastic containers are not compatible with flammable materials.* *"Closed" means properly sealed and secured. For example, the lid of a 55-gallon drum should be bunged down and not simply laid over the opening.*
F. **Spill Prevention, Cleanup, Notification, and Reporting** • *Ensure materials and resources to cleanup spills that may occur are immediately available.* • *When the conditions warrant, layout spill control measures that would prevent materials from reaching area soils, surface waters, or wetlands.* • *Do not attempt to cleanup a spill that would cause unnecessary risk to project personnel.* • *For spills that cannot be cleaned-up without personal risk, immediately contact*	*Depending on the activity, cleanup materials may not be at the immediate work site, however know where they are on the project site and have a means to get them to the work area immediately.* *Reports typically need to be prepared and submitted within 24 hours of the spill occurrence.* *Notifications to the customer and/or to regulatory officials must be handled in accordance with the project-specific notification procedure outlined in the CECP.*

OUTLINE OF INSTRUCTION	INSTRUCTOR'S NOTES and REMARKS
the area superintendent, general foreman, the SM, or CEC for proper response and any further notifications. • *When spills can be cleaned-up, organize the work to clean up the spill efficiently and effectively.* • *Prepare an incident report for the spill. Forms are available from the CEC.*	
G. Unanticipated Discoveries • *If construction activities unearth previously unknown structures, containers, discolored or foul-smelling soils or groundwater, unexploded ordnance, potential cultural resources, or suspected human remains, stop all work in the immediate area and contact the CEC.* • *Work in the area of the discovery will not re-commence until Contractor receives written approval to do so from the customer.*	*It is critical to have the area checked out and approved prior to re-commencing work. Fines, work stoppages, and even criminal liability may result if further disturbance can continue.*
H. Maintaining Environmental Controls • *If environmental controls become damaged or are removed, have them repaired or replaced and functional at task completion, but no later than the end of the workday.*	*Learn what environmental resources are on or adjacent to the work areas to better understand what is being protected and why.*
I. Disciplinary Actions for Noncompliance • *Failure to comply with the environmental requirements and information presented in the EA training creates personal and corporate liability risk(s) that could result in issuances of violations and/or fines and unfavorable public attention. In the event of significant or repeated disregard for the project environmental requirements, disciplinary action against the responsible employee(s) may result,*	*Environmental resources significantly impacted.* *Violation of laws, regulations, and permits/consents.* *Cutting corners is not the professional's way of conducting business and increase risks to the project.*

OUTLINE OF INSTRUCTION	INSTRUCTOR'S NOTES and REMARKS
up to and including termination of employment.	

Attachment 5 - Environmental Training Index

Course Title	
HSSE Policy, Philosophy, Management System	Sensitive Resource Protection
HSSE Responsibilities	Site Excavation and Backfill
Project Development and Planning Process	Solid Waste Management
HSSE Assessment Process	Spill Prevention and Control
Housekeeping Requirements	Unanticipated Discoveries
Hazard Communication Program	Universal Waste Rule Training
General Requirements	Waste Management
Environmental Policy	Water Management
Environmental Aspects	Air Emission Control and Noise Mitigation
Legal and Other Requirements	Basel Convention Overview
Objectives, Targets and Programs	Emergency Planning & Community Right to Know Act (EPCRA)
Resources, Roles and Responsibilities	Prevention of Pollution from Ships (MARPOL)
Competence, Training and Awareness	Subcontractor HSSE Evaluation, Selection and Monitoring Process
Communication	Toxic Substances Control
Documentation	Environmental Auditor Internal Certification
Control of Documents	Introduction to Integrated HSSE Management Workshop
Operational Control	OSHA 40-Hour Hazardous Waste Training
Emergency Preparedness	Subcontracts Management Manual: *Project Environmental Controls*
Monitoring and Measurement	Contract Management
Compliance Evaluation	Contracts (Prime and Sub)
Nonconformity, Corrective Action, and Preventive Action	Excavation and Trenching
Control of Records	Performance Based Leadership (PBL: New Directions in Leadership, PBL: Coaching and Feedback)
Internal Audit	Raising Environmental Awareness
Management Review	Management *Sustainable Development*
Environmental Roles and Responsibilities	Orientation, Training and Development
Construction Environmental Control Plan Development and Implementation	Prime Contracts Management Manual: *Environmental, Safety and Health*
Construction Management Manual, Instruction: *Environmental Compliance*	Project Management Manual: *Environmental, Safety and Health*
Engineering Department Procedure *Engineering for the Environment*	Startup Manager's Manual: *Environmental, Safety and Health Factors*
Environmental Services Procedure Environmental Design Criteria Development	Management Instruction: *Environmental, Safety and Health*
Legal Instruction: *Environmental Issues and Community Concerns*	

Note:

- *CBT: Computer Based Training
- *ILT: Instructor Led Training
- *SPR: Supervisor Required Training