



Engineering Standard

SAES-O-201

10 March 2012

Application of Security Directives

Document Responsibility: Safety and Security Standards Committee

Saudi Aramco DeskTop Standards

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1 Introduction

- 1.1 The SAES-O Series of Saudi Aramco Engineering Standards define security requirements at company facilities. They are based on the Security Directives (SD) issued by the High Commission for Industrial Security (HCIS), Ministry of Interior, Government of Saudi Arabia.
- 1.2 The implementation of the security requirements contained in the SD's is a statutory requirement from the HCIS.
- 1.3 There are twelve (12) SD's numbered SEC-01 – SEC-12 issued by HCIS.
- 1.4 The contents of the SD's shall be applied, within the context of each SD, to all company facilities depending on the classification of the facility.
- 1.5 The SAES O series numbering scheme corresponds to the equivalent SD. For example, SAES-O-201 corresponds to SEC-01.

2 Conflicts and Deviations

- 2.1 Where conflicts exist between the SD's and Saudi Aramco Standards, the SD's shall govern.
- 2.2 All requests for waivers or deviations from the O series standards shall be initiated by the project PMT with endorsement by the proponent admin area head. The request shall be sent to the General Manager, Industrial Security Operations (ISO).
- 2.3 The GM, ISO shall evaluate the request and endorse it if ISO concurs with it. After ISO concurrence, ISO shall forward the waiver request to HCIS for their approval.
- 2.4 ISO shall forward HCIS's response back to the PMT after it is received.

3 References

All referenced Specifications, Standards, Codes, Forms, Drawings and similar material shall be of the latest issue (including all revisions, addenda and supplements) unless stated otherwise.

3.1 Saudi Aramco References

Saudi Aramco Engineering Procedure

[SAEP-120](#)

Security Drawings for Saudi Aramco Facilities

Saudi Aramco Engineering Standard

[SAES-A-112](#)

Meteorological and Seismic Design Data

3.2 Cross Reference to SD

Listed below is a cross reference between the SD's and SAES O series:

Security Directive	SAES O Series	Title
SEC-01	SAES-O-201	Application of Security Directives
SEC-02	SAES-O-202	Security Fencing
SEC-03	SAES-O-203	Security Gate
SEC-04	SAES-O-204	Security Lighting
SEC-05	SAES-O-205	Integrated Security Systems
SEC-06	SAES-O-206	Security Devices
SEC-07	SAES-O-207	Power Supply
SEC-08	SAES-O-208	Communications
SEC-09	SAES-O-209	Security Doors
SEC-10	SAES-O-210	Security Locks
SEC-11	SAES-O-211	Identification Cards
SEC-12	SAES-O-212	Information Protection

The list referenced in this section comprises all SD's received by Saudi Aramco up to the issue date of this standard. These SD's supersede all Safety & Security Directives (SSD) previously issued by HCIS.

3.3 Definitions

Item	Definition
API	American Petroleum Institute
HCIS	High Commission for Industrial Security
IMO	International Maritime Organization
ISO	Industrial Security Operations
ISPS	International Ship & Port Facility Security Code
ISSD	Industrial Security Support Department
PMT	Project Management Team
S&IS	Safety & Industrial Security
SD	Security Directive
SSD	Safety & Security Directive

4 General Requirements

- 4.1 Proponents shall include the applicable requirements of the SAES O series standards in the design and operation of security services at a facility.
- 4.2 This SAES refers to SEC-01 which shall be complied with as applicable to each facility.
- 4.3 Facility Classification

Facilities shall be classified by the proponent in consultation with Oil Supply Planning & Scheduling Department (OSPAS), Facilities Planning Department (FPD), Loss Prevention Department (LPD) and Industrial Security Operations (ISO). The classification shall use the criteria provided in SEC-01 to assess the security classification of the facility. ISO shall have final approval of facility classification.

This classification process shall be documented and available for review by HCIS. ISO shall be responsible for advising HCIS about facility classification and securing their concurrence.

HCIS has the statutory right to change the proponent security classification or to request additional levels of protection based on their internal criteria. The level of protection at a facility shall be dictated by the HCIS concurred security classification.

Facilities shall be classified into four categories with Class 1 being the highest classification and Class 4 being the lowest classification.

- 4.4 Security Vulnerability Assessment

The PMT shall develop a detailed Security Vulnerability Assessment (SVA), or risk analysis, that shall be used to classify threats to the facility. This assessment shall follow the methodology specified in API document *Security Vulnerability Assessment Methodology for the Petroleum and Petrochemical Industries* as specified in Section 4.2 of SEC-01. The results of this assessment shall be used to enhance facility security protection, as defined by the facility classification, with additional features needed to counter identified threats.

This SVA shall be completed prior to the 30% design and its results shall be incorporated into the design packages. ISO shall have final approval authority on the SVA.

4.5 Project Workflow Overview

Projects that fall under the jurisdiction of the HCIS shall follow the following general sequence of development to ensure requisite approvals for the security related aspects of facility design are received from HCIS on a timely basis:

All documentation required for HCIS review shall be submitted to the General Manager, ISO for initial ISO ISSD review and onward transmission to HCIS. ISO shall manage all correspondence with HCIS and shall keep the PMT advised of all relevant details.

Task	Description	Corresponding Saudi Aramco Stage	Transmit Documents to HCIS
Concept	<i>Company develops concept for a new project</i>	-	Not Required
Classification	<i>Company classifies facility as specified in SEC-01</i>	-	ISO Discretion
Risk Analysis	<i>SEC-01, Section 4.1.6.</i>	-	ISO Discretion
Conceptual Design (10%)	<i>Shows the classification of a facility, the risk analysis and a proposed security design overview</i>	DBSP	3 months before preliminary design
Preliminary Design (PD) (30%)	<i>Shows details of ALL aspects of security related elements at facility</i>	30% Project Proposal	After internal Saudi Aramco review
Detail Design (60%/90%)	<i>Final Design of facility after all internal and HCIS reviews</i>	(60%/90%) Detailed Design	3 months before start of construction
Construction Release	<i>After HCIS approvals are received</i>	-	ISO Discretion
Final As-Built Drawings	<i>Retain drawings in internal company archive</i>	-	Not Required

Refer to applicable sections of SEC-01 for exact details of what is required at each stage.

4.6 Security Design Submissions

PMT shall submit security system designs to ISO for review, at each stage of development, in the format specified in [SAEP-120](#).

4.7 Environmental Requirements

4.7.1 All facilities housing security devices shall be cooled with standby capacity HVAC system. Devices installed in cabinets shall use a cabinet specific air conditioner.

4.7.2 Window type air conditioners shall not be used for cooling any security facilities or equipment.

4.7.3 Security equipment installed outdoors shall either be rated for, or have active cooling, to function in the environmental conditions specified in [SAES-A-112](#).

4.8 Contractor Selection for Security Related Project Execution

The PMT shall ensure that contractors selected for designing, executing and/or installing security related projects are approved by HCIS and meet all certifications, registration and other requirements as specified in Section 4.4 of SEC-01.

All HCIS contractor approval related correspondence shall be sent to the GM, ISO who will contact HCIS for their approval.

4.9 HCIS Approvals of Facility Security Design

4.9.1 ISO shall be responsible for acquiring all HCIS approvals for the facility security design. PMT shall submit all security design packages to ISO for further processing and approval as specified.

4.9.2 HCIS shall approve the security design packages in the various stages specified in Section 4.5 of this standard.

4.9.3 Security Design package shall be submitted to HCIS at least 3 month before the next submittal of the review cycle. Failure to make timely submissions to HCIS may cause delays in approvals.

4.10 Offshore and Marine Facilities
4.10.1 Offshore and/or marine facilities shall comply with the requirements of SEC-01, Section 4.1.11.

4.10.2 Offshore or marine facilities shall ensure that they provide an adequate level of security measures to protect these facilities. Proponents shall apply aspects of the International Ship and Port Facility Security Code (ISPS), issued by the International Maritime Organization (IMO), that apply to their offshore or marine facilities.

Proponent shall define an exclusion zone around each marine facility. They shall ensure that adequate warning signs are deployed on strategically located buoys advising incoming traffic that they are entering a restricted area.

These warning signs shall comply with prevailing Saudi Arabian and international marine standards on sign construction and design. Proponent shall be responsible for ensuring all required permissions and standards for buoy deployment are complied with and that the buoys are maintained in good condition.

- 4.10.3 Proponent shall deploy marine barriers to protect marine facilities. Deployment of these barriers shall not compromise safety considerations for the facility.

4.11 Product Selection for Security Applications

Industrial Security Operations (ISO) has an extensive suite of standard devices and systems deployed Kingdom-wide as part of the core security infrastructure. These devices and systems are fully integrated into ISO workflows and system designs to ensure efficient service delivery.

Devices and systems selected for security applications must fully integrate into this existing security infrastructure in order to maintain business continuity and avoid any disruption of workflows.

The Manager, Industrial Security Support Department (ISSD) should be contacted for further details regarding standard ISO devices and systems before initiating security design activities.

4.12 Standard Design of Security Facilities

ISO has developed a comprehensive suite of standard designs for security facilities that are available for designers. These designs incorporate SD compliance and ISO operational requirements.

The designs can be found at <http://standards.aramco.com.sa> by typing *Security* in the search field. Included in these designs are standard designs for 2-3 man, 4-6 and 6-8 man gatehouses as well as support infrastructure. All of these designs can be resized to deal with specific site requirements. ISO shall retain final design approval on all security related structures.