

Engineering Standard

SAES-O-126

12 October, 2005

Blast Resistant Control Buildings

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Saudi Aramco DeskTop Standards

Table of Contents

1	General.....	2
2	Amendments.....	2
3	Commentary.....	2

1 General

This standard refers to Blast Resistant Control Building for Saudi Aramco's vital industrial facilities per [SAES-O-100](#), paragraph 1.3. This Standard shall be used in conjunction with Safety and Security Directive No. 26 (SSD/26) of the Saudi Arabian Government Supreme Commission for Industrial Security.

2 Amendments

Safety and Security Directive No. 26 has not been amended by the Supreme Commission for Industrial Security.

3 Commentary

The following items contain clarifications that have resulted from applying this standard to Saudi Aramco projects. Any conflict with requirements in SSD/26 shall require approval of a deviation request in compliance with [SAES-O-100](#), Section 4.4.

- 3.1 New Control buildings shall be designed in accordance with [SAES-M-009](#), "Design Criteria for Blast Resistance Buildings", [SAES-M-100](#), "Saudi Aramco Building Code" for requirements non-related to blast loadings and [SAES-O-126](#), "Blast Resistant Control Buildings". SSD/26 shall govern when conflicts occur with the other standards.
 - 3.2 Metric equivalents for the English units throughout this Directive can be found in [SAEP-103](#), "Metric Units of Weight and Measure".
 - 3.3 It is understood that the positive pressure air system shall be designed in accordance with paragraph 40a through 40d of SSD/26 only.
 - 3.4 Paragraph 40c of SSD/26 is understood to read; a ventilation rate of 15 cfm per person or 1/30 of the volume of the conditioned space per minute, whichever is greater.
 - 3.5 It is often necessary to provide a small laboratory in the control building for process control purposes. It is recommended that if the laboratory room is part of the control building, it shall be separated from the control room by a wall having a 2-hour fire resistance rating without any openings between the laboratory and control room area.
 - 3.6 If associated offices, dining and recreation rooms, switchgear room, are structurally integral with the control building, they must also comply with [SAES-M-009](#), [SAES-M-100](#) & SSD/26.
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- 3.7 Control Buildings shall be located at least 60 m from the Security Perimeter Fence (SSD/1 or SSD/2).
- 3.8 Unmanned satellite instrument centers for plant process management and control, associated with a central manned control building shall comply with [SAES-M-009](#) & SSD/9 in lieu of SSD/26.
- 3.9 Reference Standards (Latest Edition)

Saudi Aramco Engineering Procedure

[SAEP-103](#) *Metric Units of Weight and Measure*

Saudi Aramco Engineering Standards

[SAES-B-019](#) *Portable, Mobile and Special Fixed Firefighting Equipment*

[SAES-B-055](#) *Plant Layout*

[SAES-K-001](#) *Heating, Ventilation and Air-Conditioning*

[SAES-K-002](#) *Air-Conditioning Systems for Essential Operating Facilities*

[SAES-M-009](#) *Design Criteria for Blast Resistant Buildings*

[SAES-M-100](#) *Saudi Aramco Building Code*

[SAES-O-100](#) *Safety and Security, General Requirements*

[SAES-O-111](#) *Power Supplies*

[SAES-O-112](#) *Communications*

[SAES-O-118](#) *Fire Fighting Equipment*

[SAES-O-126](#) *Control Buildings*

[SAES-S-060](#) *Saudi Aramco Plumbing Code*

Safety and Security Directives

SSD/1 *Standard Security Fence*

SSD/2 *Category II Fencing*

SSD/9 *Minimum Standards for Buildings Housing Sensitive or Vital Equipment*

SSD/26 *Blast Resistant Control Rooms*

Revision Summary

12 October, 2005

Revised the "Next Planned Update". Reaffirmed the contents of the document, and reissued with no other changes.