

PETRONAS TECHNICAL STANDARDS

DESIGN AND ENGINEERING PRACTICE

MANUAL

OFFSHORE FACILITIES LIFE-SAVING APPLIANCE REQUIREMENTS (AMENDMENTS/SUPPLEMENTS TO SOLAS)

PTS 80.80.00.10

DECEMBER 2010



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This revision of PTS **80.80.00.10 - OFFSHORE FACILITIES LIFE-SAVING APPLIANCE REQUIREMENTS (AMENDMENTS/SUPPLEMENTS TO SOLAS) (December 2010, Revision 1)** has been updated to incorporate PETRONAS Lessons Learnt, Best Practice and new information issued by relevant industry code and standards. All updates in the document are highlighted in *italic* font.

The previous version of this PTS **80.80.00.10 (November 2003)** will be removed from PTS binder / e-repository from herein onwards.

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Document Approval

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PREFACE

PETRONAS Technical Standards (PTS) publications reflect the views, at the time of publication, of PETRONAS OPU/Divisions.

They are based on the experience acquired during the involvement with the design, construction, operation and maintenance of processing units and facilities. Where appropriate they are based on, or reference is made to, national and international standards and codes of practice.

The objective is to set the recommended standard for good technical practice to be applied by PETRONAS' OPU in oil and gas production facilities, refineries, gas processing plants, chemical plants, marketing facilities or any other such facility, and thereby to achieve maximum technical and economic benefit from standardisation.

The information set forth in these publications is provided to users for their consideration and decision to implement. This is of particular importance where PTS may not cover every requirement or diversity of condition at each locality. The system of PTS is expected to be sufficiently flexible to allow individual operating units to adapt the information set forth in PTS to their own environment and requirements.

When Contractors or Manufacturers/Suppliers use PTS they shall be solely responsible for the quality of work and the attainment of the required design and engineering standards. In particular, for those requirements not specifically covered, the Principal will expect them to follow those design and engineering practices which will achieve the same level of integrity as reflected in the PTS. If in doubt, the Contractor or Manufacturer/Supplier shall, without detracting from his own responsibility, consult the Principal or its technical advisor.

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1. INTRODUCTION

1.1 SCOPE

This new PTS specifies requirements and gives recommendations for the design, manufacture, testing and operation of life-saving appliances for secondary and tertiary methods of abandonment of offshore facilities described below.

Section (3) of this PTS gives amendments and supplements to SOLAS, Consolidated Edition, 1997 and sections (2) and (4) give further supplements, all of which are considered necessary to ensure compliance with PETRONAS Group requirements.

The numbering of regulations in section (3) follows that of SOLAS. Only the regulations of SOLAS which are included in this PTS shall apply.

1.2 DISTRIBUTION, INTENDED USE AND REGULATORY CONSIDERATIONS

Unless otherwise authorised by PETRONAS, the distribution of this document is confined to companies forming part of PETRONAS Group, and to Contractors nominated by them.

This PTS is intended for use in oil refineries, chemical plants, gas plants, supply/marketing installations and, where applicable, in onshore exploration and production facilities.

If national and/or local regulations exist in which some of the requirements may be more stringent than in this PTS, the Contractor shall determine by careful scrutiny which combination of requirements will be acceptable as regards safety, economic and legal aspects. In all cases the Contractor shall inform the Principal of any deviation from the requirements of this document which is considered to be necessary in order to comply with national and/or local regulations. The Principal may then negotiate with the Authorities concerned with the object of obtaining agreement to follow this document as closely as possible.

1.3 DEFINITIONS

1.3.1 General definitions

The **Contractor** is the party which carries out all or part of the design, procurement, construction, commissioning or management of a project, or operation or maintenance of a facility. The Principal may undertake all or part of the duties of the Contractor.

The **Manufacturer/Supplier** is the party which manufactures or supplies equipment and services to perform the duties supplied by the Contractor.

The **Principal** is the party which initiates the project and ultimately pays for its design and construction. The Principal will generally specify the technical requirements. The Principal may include an agent or consultant authorised to act for, and on behalf of, the Principal.

The word **shall** indicates a requirement.

The word **should** indicates a recommendation.

1.4 ABBREVIATIONS

HSE	Health, Safety and Environment
SOLAS	Safety of life at Sea
STL	Static Test Load
SWT	Safe Winch Test
SWL	Safe Working Load
TEMPSC	Totally Enclosed Motor Propelled Survival Craft

1.5 CROSS-REFERENCES

Where cross-references to other parts of this PTS are made, the referenced section number is shown in brackets. Other documents referenced in this PTS are listed in (5).

1.6 ORDER OF PRECEDENCE

The following descending order of precedence shall apply:

- local regulations;
- this PTS;
- other PTSs and standards referenced herein; and
- other standards or codes as appropriate.

Any conflict between this PTS and other referenced documents shall be referred to the Principal for resolution.

1.7 SUMMARY OF CHANGES

The previous edition of this PTS was dated November 2003. This revision has been essentially only editorial, with no technical changes.

2. GENERAL

2.1 OFFSHORE FACILITY REQUIREMENTS

Offshore facilities shall be designed to maintain the safety of personnel when they move to another location to avoid a hazardous event, to provide temporary refuge for as long as is necessary and to facilitate safe rescue.

The basis for the design of the Escape, Evacuation & Rescue (EE&R) systems shall be EP 95-0230, HSE Design Manual. Section 6.11 of this manual is fully applicable. Interpretation of ISO/DIS 13702 for offshore facilities should be based on EP 95-0230.

A study should evaluate the need for and means of EE&R in the event of platform emergencies to establish performance criteria for these, commensurate with the HSE policy of the Principal. The environmental conditions throughout the year should be considered for their impact on potential escape and evacuation requirements.

The need for of a standby boat should be evaluated in the light of the performance criteria.

2.2 ABANDONMENT METHODS

In principle, three methods of abandonment should be provided from offshore installations:

- Primary method: The preferred primary method is the normal way of access to the installation, generally involving external assistance. Examples are helicopters in remote or environmentally hostile areas, or crew boats in other areas. When a mobile unit is connected, evacuation should normally be through the gangway connecting the unit to the installation.
- Secondary method: For manned installations a secondary method for evacuation shall be provided. This is the self-supporting way to evacuate the installation, typically by means of survival craft such as TEMPSC (Totally Enclosed Motor Propelled Survival Craft).
- Tertiary methods: A tertiary method of escape e.g. life rafts, personal chutes, knotted ropes, etc., shall be provided to permit direct access to the sea. The tertiary method should be used only if the primary or secondary methods are not possible.