

ตารางแสดงวงเงินงบประมาณที่ได้รับจัดสรรและราคากลาง(ราคาอ้างอิง)

ในการจัดซื้อจัดจ้างที่มีใช้งานก่อสร้าง

๑. ชื่อโครงการ..... การจัดซื้อแผ่นเหล็กตัวเรือ สำหรับโครงการเรือตรวจการณ์ไกลฝั่ง  
กิจกรรม..... การจัดซื้อแผ่นเหล็กตัวเรือ จำนวน ๑๐ รายการสำหรับโครงการเรือตรวจการณ์ไกลฝั่ง  
/หน่วยงานเจ้าของโครงการ สำนักโครงการเรือตรวจการณ์ไกลฝั่ง ลำที่ ๒ บริษัท อยู่กรุงเทพ จำกัด
๒. วงเงินงบประมาณที่ได้รับจัดสรร ๔,๗๐๐,๐๐๐ บาท (รวมภาษีมูลค่าเพิ่ม ๗%)
๓. วันที่กำหนดราคากลาง (ราคาอ้างอิง) วันที่ ๓ กุมภาพันธ์ ๒๕๖๐  
เป็นเงิน ๑๓๓,๑๖๓.๕๒ ดอลลาร์สหรัฐ  
(คิดเป็นเงินไทย ๔,๖๙๖,๖๒๔.๐๙ บาท อัตราแลกเปลี่ยน ณ วันที่ ๓ กุมภาพันธ์ ๒๕๖๐)
๔. แหล่งที่มาของราคากลาง (ราคาอ้างอิง)  
จากการสืบราคาปัจจุบัน จากบริษัทผู้แทนจำหน่าย ดังนี้  
๔.๑ Posco Daewoo Corporation
๕. รายชื่อเจ้าหน้าที่ผู้กำหนดราคากลาง (ราคาอ้างอิง)  
๕.๑ นายวิทยา เลิศบัวสิน ปฏิบัติหน้าที่หัวหน้าแผนกบริหารงานพัสดุ  
๕.๒ นายธนาพิพัฒน์ วุฒิวงศ์ พนักงานพัสดุ ๒

## Term of Reference(TOR)

### The Purchasing 10 lists of the hull steel plate

#### **1. Objective**

The Bangkok Dock Company (1957) Limited (Buyer) wishes to announce this Term of Reference (TOR) for purchasing 10 lists of the hull steel plate (Goods) to the manufacturer or dealer (Bidder), for the construction of the Royal Thai Navy Offshore Patrol Vessel (OPV).

#### **2. Requirement**

2.1 Goods shall be Higher Strength Tensile steel plate which is suitable for ship building.

2.2 Good shall be produced from the same steel mill. The steel mill shall be in Thailand or Western European Country or The Commonwealth of Australia or Japan or Korea or People Republic of China. The details are in ANNEX A: Technical Requirement Specification.

2.3 Goods shall be new and never used before.

#### **3. Condition of Bidding**

3.1 The bid price shall include all costs, expenses, fees, exclude Tax (VAT), and cost for transportation which shall be CIF Laem Chabang Port, Chonburi, Thailand in accordance with Incoterms 2000 or Incoterms 2010 (by vessel with Thai flag or same privilege).

3.2 This bid price shall exclude customs duty for the list of materials imported into the Kingdom of Thailand.

3.3 The enumeration of the bid price must be provided in Price per Unit, Total Price for each list, Grand Total Price, exclude Tax (VAT)

#### **4. Qualification of Bidder**

4.1 Bidder must be a professional to sell goods in this bid.

4.2 Bidder has never been on the blacklist of the Thai Government, or as a result of not receiving orders to another entity or person who is blacklisted by the Thai Government.

4.3 Bidder must act as principal for its own account and not as agent or broker. If any Bidder has a coordinator in Thailand, the name and contact details of such coordinator must be clearly specified in the proposal.

4.4 Bidder must have own bank account where receive/payment shall be made, except, if each payment is not over 30,000 Bath, the counter party may receive/paid by cash.

#### **5. Document for Consideration**

##### **5.1 Bidder's Qualification Document**

5.1.1 Copy of Company Registration/Affidavit1 and certified true copy.

5.1.2 Letter of power of attorney. In case of the bidder is authorized the behalf to bid, sign in the bid, or in the other cases. The letter shall be affixed the duty and enclosed with the copy of the identity card or passport and/or household registration, which declare both of the authorizer and behalf.

##### **5.2 Technical Specification Document**

5.2.1 The details of specification of goods in this bid must meet the buyer's requirements. The bidder must clearly identify the manufacturer profile and the country of origin.

- 5.2.2 Copy of List of Approved Steelmakers and Manufactures of Rolled Steel Plates, Strip, Sections and Bars by Member of International Association of Classification Society (IACS) (The buyer only recognize Llyod's Register or Germanicher Lloyd). The details shall be at least:
- Manufacturer/FactoryName and Country of Origin
  - Manufacturer/Factory Address
  - Certificate Number
  - LR or GR Country/Regional Office Address that is referred by manufacturer/factory
  - Details of products of manufacturer/factory, such as Steel Plate, Strip, Sections and Bars
  - Category of manufactured steel, such as, Normal Strength or Higher Strength Steel
  - Grade of manufactured steel, such as, Grade A, B, C, D, E, AH32, AH36, DH32, DH36, EH32, EH36
  - Maximum Thickness/Diameter (in mm.) of manufactured steel
- The steel mill that goods are produced shall be listed in the 5.2.2 above.
- 5.2.3 Copy of Approval Certification by LR or GL that has the Certification No. match with the list in 5.2.2, and effective till to the date of submission for the bid.
- 5.2.4 Copy of sample of inspection certificate or test certificate or relevant document which demonstrates that goods meet the specifications and standards required by buyer according to 5.2.2
- 5.2.5 If the Technical Specification documents do not comply with item 5.2.1 - 5.2.4, the buyer reserves the right not to consider the bidder.

## **6. Delivery and Acceptance**

- 6.1 If the goods are transported via sea freight that has Thai flag or the same privilege vessel in operation, Thai flag or the same privilege vessel shall be used. Relevant Bill of Lading shall also be provided.
- 6.2 The bidder must declare document and/or evidence of delivered goods that meet the specification and standard which specified in Contract or purchase order (PO) as stated in all respects. Inspection or test certificate which is approved by Llyod's Register or Germanicher Lloyd shall also be provided.
- 6.3 If the delivered goods from bidder do not meet the requirements, buyer reserves the right to reject those goods. And in this case, the bidder must immediately take the right to change immediately.
- 6.4 Goods shall be delivered to the buyer not more than 80 days after Contract Effective Date (CED)

## **7. Penalty**

If the bidder cannot deliver on time as buyer's scheduled, bidder must pay on a daily rate penalty of 0.05 percent of the goods value that are not delivered from the date of delivery until the date that the bidder has fulfilled the conditions in the contract.

**8. Condition of Payment**

8.1 Buyer agrees to pay the goods to the bidder when the buyer has received the goods and receive them completely.

8.2 Payment by this condition, buyer will transfer directly into the bank account of the bidder. The bidder is responsible for any other charges related to the transfer of the bank levy, and consent to such deductions from the amount transferred in that period.

8.3 The bank must be registered in Thailand.

**9. validity**

30 days after quotation.

**10. Performance Security**

The bidder shall submit to the Buyer a performance security in the form of a letter of guarantee in five percent (5%) of the Contract Price.

**11. Appendix**

Appendix A: Technical Requirement Specification



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ANNEX A  
TECHNICAL **REQUIREMENT** SPECIFICATION

STRUCTURE STEEL PLATES  
THE ROYAL THAI NAVY  
OFFSHORE PATROL VESSEL

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CONTENTS

1	INTRODUCTION .....	3
2	STANDARDS.....	3
3	TECHNICAL REQUIREMENTS .....	3
3.1	Definition .....	3
3.2	Structural steel plate .....	3
3.3	Blasting and priming .....	3
4	SCOPE OF SUPPLY.....	4
5	WEIGHT .....	4
6	COMPLIANCE.....	4
7	INSPECTIONS AND TESTS .....	4
8	ENVIRONMENTAL CONDITIONS .....	4
9	ELECTRICAL REQUIREMENTS.....	4
10	INFORMATION REQUIRED .....	4
11	SAFETY .....	4
	ENCLOSED DOCUMENT .....	6



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### 1 INTRODUCTION

This specification establishes the technical requirements for structural steel materials for 90.5 meter Offshore Patrol Vessel for The Royal Thai Navy.

### 2 STANDARDS

Steel Plate shall be higher strength steel manufactured and approved in accordance to the requirements of Lloyd's Register (LR), to achieve LR grade DH36 (minimum 355 N/mm<sup>2</sup> yield strength) unless otherwise stated in the scope of supply below.

Steel Plate of all required sizes must be produced from a same steel mill which is listed in the Lloyd's Register (LR) Steel Makers and Manufacturers List. Valid LR certificate is required.

In the event that the requirements of LR directly conflict with specific requirements in this specification, the sponsor of this specifications is to be informed.

### 3 TECHNICAL REQUIREMENTS

#### 3.1 Definition

The structural steel to be supplied shall be steel plate .

#### 3.2 Structural steel plate

The steel plate shall range in thickness between 5mm and 75mm. It shall conform to the standards and specifications detailed in the enclosed document.

#### 3.3 Blasting and priming

All steel plates are to be automatically shot/grit blasted to SA2½ ISO 8501-1:1988, with a surface profile of 40 to 75 microns (Rz value) without distortion or as approved by the paint system supplier and Bangkok Dock. Surface profile is to be measured using a stylus type instrument such as a "Surtronic 3plus" or an equivalent instrument approved in advance by Bangkok Dock.

They are then to be spray primed before oxidation occurs (within 4 hours), with Interplate 317 to an average dry film thickness of 25 microns, ±3 microns. Special care must be taken to avoid paint runs and beads along the toe edges of sections in way of weld runs.

When materials have been primed, they are to be stored under cover in dry conditions. If wooden spacers are to be used to allow air circulation between the plates, they are to be of non-oak timber.

With each batch of material supplied, a cold-rolled steel sample plate, which has been



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coated with the primer material, is to be provided. In the event of glass plates being used to check primer thickness, documentary evidence is to be provided at the time of material delivery.

#### 4 SCOPE OF SUPPLY

The scope of supply as detailed in the enclosed document.

#### 5 WEIGHT

The estimated weight of the total scope of supply, including weight tolerance, is to be stated in the response. The tolerance used is to be quoted.

#### 6 COMPLIANCE

Material is to be fully compliant with this specification.

#### 7 INSPECTIONS AND TESTS

Materials are to be subject to the tests required by Lloyd's Register in order to comply, with the standards specified in section 2 above.

Each steel plate shall have marking which shows identification of material. Minimum requirement shall be heat number, Classification Society mark and grade. Manufacturer's certificate validated by Classification Society of the same heat shall be presented. Bangkok Dock reserves the right to witness all Factory Acceptance Inspections and Tests.

#### 8 ENVIRONMENTAL CONDITIONS

Not applicable.

#### 9 ELECTRICAL REQUIREMENTS

Not applicable.

#### 10 INFORMATION REQUIRED

Not applicable.

#### 11 SAFETY

The safety of the material being supplied is to meet all relevant, current Kingdom of Thailand Health and Safety Legislation. In law, those responsible for the specification, design, procurement and supply of articles and substances have a duty to ensure, so far as is reasonably practicable, that the articles and substances are without risks to health and safety when properly used.

Additionally, effective steps are to be taken to ensure that adequate information on the potential hazards of the above and the conditions necessary to control the risks are





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supplied to all users.

Hazardous Substances and Materials. The Control of Substances Hazardous to Health (COSHH) Regulations, under the H&SWA, contain specific procedures to control listed hazardous substances to minimize a hazard arising. A list of all hazardous substances, including Asbestos and those covered by COSHH is to be provided by the equipment supplier.

In addition to any handbooks required, the supplier is to provide adequate information to facilitate safe installation and setting to work by shipyard staff. This information is to be delivered with, and securely attached to the equipment, clearly marked as "Installation Safety Instructions". A separate copy of this information is to be forwarded to Bangkok Dock prior to dispatch of the equipment.



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ENCLOSED DOCUMENT

SCOPE OF SUPPLY OF STEEL PLATES

NO	Grade	Size (mm)			PCS
		Thickness	Width	Length	
1	LR DH 36	5	2,850	13000	8
2	LR DH 36	6	3,000	13,000	6
3	LR DH 36	7	3,000	13,000	5
4	LR DH 36	8	3,000	13,000	9
5	LR DH 36	9	3,000	13,000	1
6	LR DH 36	10	3,000	13,000	12
7	LR DH 36	12	3,000	13,000	9
8	LR DH 36	15	3,000	13,000	7
9	LR DH 36	18	3,000	6,000	5
10	LR DH 36	40	3,000	6,000	2
<b>Total</b>					<b>94</b>