

馬來西亞商沙布拉離岸有限公司臺灣分公司

Sapura Offshore Sdn. Bhd. Taiwan Branch

雲林允能離岸風場水下基礎安裝計畫

Underwater foundation Installation Plan for Yunlin Offshore Wind Farm

本國籍船員培訓計畫大綱

Outline of Taiwanese marine crew training program

一、目的 Purpose：本公司考量水下基礎安裝船舶及設備特殊類型，現行國內本國籍船員尚缺操作經驗，爰規劃培訓課程，使本國籍船員熟悉及累積相關工作船之操作經驗。Considering the special types of Heavy Lift Vessel and equipment, the current domestic seafarers still lack operational experience, so a training course is planned to make the seafarers familiar with and accumulate operational experience of relevant working ships.

二、船舶類型、船員配置、職務及工作期程 Type of vessel, crew configuration, duties and working schedule

(一) 船舶類型 vessel type：DP3 水下基礎安裝船 Sapura 3500
(DP3 HLV Sapura 3500)

(二) 船員配置 crew configuration：

Nombre del Buque: SAPURA 3500 Name of ship	Numero IMO: 9651204 IMO No.
Puerto de Matricula: PANAMA Port of registry	Letras de Radio: 3FVU8 Call Sign
Nacional: 0.00 National Gross Tonnage	Potencia (KW): 30240 Propulsion (KW)
Arqueo Bruto (Convenio Internacional 1969): 40845.00 International Tonnage Convention, 1969	Tipo de Buque: OTHER CARGO SHIP, HEAVY LIFT AND PIPE LAY VESSEL Type of Ship
Espacio de Máquinas sin dotación Permanente: NO Periodically unattended machinery space	

Compañía que explota el buque: **SAPURA OFFSHORE SDN BHD**
Operating Company

Zona de Navegación (Trading area)

WORLDWIDE TRADE

Se considerará que el buque cuyo nombre figura en el presente certificado tiene la dotación de seguridad adecuada si, al hacerse a la mar, lleva a bordo como mínimo el número de personas con las categorías o cargos indicados en el cuadro siguiente:

The ship named in this document is considered to be safety manned if, when it proceeds to sea, it carries not less than the number and grades/capacities of personnel specified in the table(s) below.

Categoría/Cargo Grade/Capacity	Título (Regla del Convenio de Formación STCW) Certificate (STCW regulation)	Numero de Personas Number of Persons
Master	II/2	ONE (1)
Chief Mate	II/2	ONE (1)
Deck Officer	II/1	ONE (1)
A.B. Seamen	II/4 or II/5	THREE (3)
Ordinary Seamen	VI/1	TWO (2)
Chief Engineer	III/2	ONE (1)
2nd. Engineer	III/2	ONE (1)
Eng. Officer	III/1	ONE (1)
Oiler(s)/Motorman	III/4 or III/5	THREE(3)

(三) 職務Position :

Able Seaman (AB) 一級水手
Ordinary Seaman (OS) 普通水手
Electrician 電工
Mechanic 技工
Motorman 輪機工

上述應徵面試人數不拘，合計5人為限。

The number of applicants mentioned above is limited to 5 in total.

(四) 工作期程Working Period :

預計自 110 年 1 月 1 日至 110 年 06 月 30 日。

Expected from January 1st, 2021 to June 30th, 2021.

然實際工作／作業期程仍需視當時海氣象與業主計畫之安排而定。

However, the actual work/operation schedule still depends on the prevailing sea weather and the plan of the developer.

三、無法僱用本國籍船員之原因

Reasons for not being able to employ Taiwanese marine crew

水下基礎安裝船之甲板設備、吊裝平台、抱樁器及打樁架需相關經驗及知識方能安全作業。因海上進行打樁作業時，基於現場調查工作於安全、品質及經濟上之考量，亦因海床水深、海氣象及地質條件之不同，使用之設備機具及操作皆不同，亟仰賴具豐富實作經驗之工程人員操作，而因目前台灣缺少水下基礎打樁或離岸風電相關人才，故馬來西亞商沙布拉離岸有限公司臺灣分公司擬應徵本國具經驗之船員，培訓後以隨船實習生方式上船學習。Experience and knowledge are required for safe operation of deck equipment, lifting platform, pile bolting and piling frame of underwater foundation vessel.

For offshore pile driving operations, based on field investigation on the safety, quality and economic considerations, also because of the sea water depth, the sea of different meteorological and geological conditions, using tools and equipment operation is different, to be strong on operation of a rich practical experience of engineers, and Taiwan currently lacked underwater foundation piling or offshore wind power related personnel, so Sapura Offshore Sdn. Bhd. Taiwan Branch apply their experience of the crew after the training way to despatch, intern study aboard.

(一) 船員資格條件Qualification of marine crew

1. 船員資格條件Qualification of marine crew

A. 持相關適任證書及 STCW2010 訓練證書。

Holder of relevant certificate of competency and STCW2010 training Certificate.

B. 因船上多為外國籍船員，需具備流利英語溝通能力，具備多益 TOEIC 700分或全民英檢中高級程度（含聽力讀寫及口說四項）或經面試溝通無礙者優先錄取培訓。

As most of the crew members on board are foreign nationals, fluent English communication skills are required, with TOEIC 700 or GCSE (including listening, reading, writing and speaking) in THE GEPT, or with no difficulty in communication by interview are preferred.

C. 離岸風電作業人員相關健檢核可證書Relevant health examination approval certificate for offshore wind farm operators : Medical (OGUK / PETRONAS)。

D. 海上作業人員相關逃生訓練核可證書Approval Certificate of

relevant escape training for maritime operators : OPITO BOSIET / FOET / GWO BST 。

2. 福利Benefits :
依照船員法相關規定。According to the seafarer law.
3. 工作地點Location :
雲林允能離岸風場。Yunlin Offshore Wind Farm
4. 規劃僱用本國籍船員之數Hiring the numbers of Taiwanese marine crew : 最低安全標準配額之1/3，共5名。
One third of the Minimum Safe Manning Certificate standard quota, a total of five.
5. 預計培訓之本國籍船員人數Expected training the numbers of Taiwanese marine crew : 5名Five 。

(三) 為培育本土人才，由馬來西亞商沙布拉離岸有限公司臺灣分公司分派現役船員以進行離岸風電大型工作船實習培訓計畫。

In order to cultivate local talents, the Taiwan branch of Sapura Offshore Sdn. Bhd. Taiwan Branch assigned the active marine crew to carry out the internship training program for offshore wind farm Heavy Lift Vessel.

四、培訓本國籍船員之訓練項目、方式、期程及內容

Training program, method, schedule and content of Taiwanese marine crew

- (一) 訓練之項目含安全訓練及水下基礎安裝船相關事務訓練兩大項，詳細項目請見〈培訓計畫課程表〉。

The training items include safety training and the equipment of Heavy Lift Vessel related training. For details, please refer to the training schedule.

- (二) 訓練之方式含教室課程、現職船員講解及模擬指導操作、第三方單位講解等方式，詳見〈培訓計畫課程表〉。

The training methods include classroom courses, on-board crew explanation and simulated instruction operation, and explanation by a third party. For details, please refer to the training schedule.

- (三) 訓練之期程、內容及時數(如有訓練課程表請一併檢附) 詳細內容請見〈培訓計畫課程表〉。

the duration, content and timely number of the training (please attach the training schedule if there is one) for details, please refer to the training schedule

- (四) 培訓船員之名單(或實習生名單)：正式名單將於船員/實習生雇用後，於提送外籍水下基礎安裝船(Sapura3500)來台申請工作計畫時一併提送航港局備查。
The training Taiwanese marine crew list (or the list of interns) shall be submitted to the MPB in the future for MPB permit application of HLV (Sapura 3500) once the Taiwanese marine crew/ interns are employed.

五、預計僱用之船員名單與僱傭期程計畫

List of crew members expected to be employed and employment schedule

- (一) 此次五位培訓生擬計畫經直接面試錄取本公司或與國內本土業者合作以外包僱用之本國船員/實習生，然考量國內較缺乏國際大型水下基礎安裝工作船之實作機會，本公司欲藉此機會培訓國內本土船員於發展離岸風電之經驗，拓展國際。

The five trainee proposed plan by directly admitted to interview by Sapura group or to cooperate with local agent with their experience of hiring crew/ interns, but consider a lack of international domestic large-scale Monopile installation work of practical opportunities, Sapura group to training Taiwanese marine crew in

development local experience for offshore wind farm project.

(二) 工作期程 Working Period :

預計自 110 年 1 月 1 日至 110 年 06 月 30 日。

Expected from January 1st, 2021 to June 30th, 2021.

然實際工作／作業期程仍需視當時海氣象與業主計畫之安排而定。

However, the actual work/operation schedule still depends on the prevailing sea weather and the plan of the developer.

(三) 正式名單將於船員／實習生雇用後，於提送外籍水下基礎安裝(Sapura3500)來台申請工作計畫時一併提送航港局備查。

The official Taiwanese marine crew/ interns list will be submitted to the MPB in the future for MPB permit application of HLV (Sapura 3500) once they are employed.

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船員培訓計畫課程表

Schedule of Taiwanese marine crew training Program

訓練項目 Training items	訓練時 數 Training hours	訓練方式 Training way	課程大綱說明 Course outline	師資 Instructor
安全訓練 Safety training				
HSSE Induction	2 hrs	課堂教學 Classroom Session	<ol style="list-style-type: none"> 1. 說明公司主要核心安全政策目標。 2. 職業安全衛生法規以及ISO 14001 & ISO 45001，HSSE(Health健康, Safety安全, Security保全, Environment環境)原則介紹。 3. 依據職業安全衛生法規以及ISO 14001 & ISO 45001職業衛生管理系統，告知危險物與有害物的辨識，以及災害預防方式。 4. 基本法規說明以及安全意識的宣導，高處作業時使用的安全工具辨識以及標示說明，主目的建立安全確保意識。 5. 為減少因不當姿勢過度及超出人力承受負荷，所造成的身體傷害，說明人因工學以及搬運原則、有效使用助力設施的方法、法源說明等資訊。 6. 依據ISO 14001環境管理系統進行，說明產品生命週期評估、企業環境報告、綠色標章等應進行之管理辦法。 <ol style="list-style-type: none"> 1. Explain the company's key core security policy objectives. & HSSE Induction. 2. Occupational Safety and Health regulations and ISO 14001 & ISO 45001, as well as HSSE(Health, Safety, Security, Environment) Induction. 3. According to the occupational safety and health regulations and ISO 14001 & ISO 45001 occupational health management system, inform the identification of hazardous and hazardous substances and the 	HSE Officer

			<p>way of disaster prevention.</p> <p>4. Basic regulations and safety awareness promotion, identification and labeling of safety tools to be used when working at height, main purpose to establish safety awareness.</p> <p>5. In order to reduce the physical injury caused by improper posture and excessive human load, the author explains the principles of human engineering and handling, the effective use of power facilities, and the source of information.</p> <p>6. According to ISO 14001 environmental management system, explain the management methods of product life cycle assessment, enterprise environmental report, green label, etc.</p>	
<p>海洋哺乳動物意識課程 Marine Mammal Awareness Sesion</p>	1 hr	<p>課堂教學 Classroom Session</p>	<p>課程涵蓋：</p> <ol style="list-style-type: none"> 1. 台灣引進鯨類介紹，特別是西海岸一帶。 2. 台灣的環境對鯨類的影響。 3. 風電場建設的緩解措施。 4. 台灣海洋污染控制法概述。 <p>上述目標為確保船員在專案安裝階段瞭解海洋哺乳動物。</p> <p>The session covered;</p> <ol style="list-style-type: none"> 1. Introduction of cetaceans in Taiwan, especially along west coast area. 2. Environments treats on cetaceans in Taiwan 3. Mitigation measures for windfarm construction 4. Overview on Taiwan Marine Pollution Control Act <p>Objectives is to ensure crew aware on marine mammals during project installation phase.</p>	HSE Officer

訓練項目 Training items	訓練時數 Training hours	訓練方式 Training way	課程大綱說明 Course outline	師資 Instructor
水下基礎安裝船相關事務訓練 the equipment of Heavy Lift Vessel related training				
船上甲板設備熟悉 Familiar with deck equipment on board	1 day	由現職船員講解及模擬指導操作 Instruction and simulation instruction from current crew members	由資深船員及工程師，說明各項甲板設施及應注意事項、標示意義、應變措施、水下基礎安裝船活動安全講習 Senior crew and engineers will explain the deck facilities and precautions, marking significance, response measures and safety training of HLV operational activities.	Superintendent, Barge Foreman or Chief Engineer
海上起重機操作講解及見習 Marine crane operation instruction and probation	1 day	由現職船員講解及模擬指導操作 Instruction and simulation instruction from current crew members	由資深船員及工程師，進行海上起重機操作培訓，包含：1.原理說明：液壓系統原理、靜態操作說明、動態操作說明；2.系統說明：系統示意圖、電子元件、機械元件；3.手冊解讀說明；4.故障排除；5.保養維護；6.安全檢查 Crane operation training by senior crew and engineers, including: 1. Principle description: winch introduction, operation principle; 2. System description: system schematic diagram, electronic components, mechanical components; 3. Interpretation of the manual; 4. Troubleshooting; 5. Maintenance; 6. Security check	Crane Operator or Chief Engineer
施工圖判讀 Construction drawing interpretation	1 day	由現職船員講解及模擬指導操作 Instruction and simulation instruction from current crew members	由資深船員及工程師，說明施工圖的解讀：包含視圖種類說明、比例尺、座標、圖示意義的解讀 Senior crew members and engineers will explain the interpretation of construction drawing including visual interpretation of diagram types, scales, coordinates and graphical meanings	Senior crew or Vessel engineer

吊裝平台之熟悉及維護工作 Be familiar with and maintain the hoisting platform	1 day	由現職船員講解及模擬指導操作 Instruction and simulation instruction from current crew members	由資深船員及工程師，進行海上吊裝平台的背景說明、種類、船用系統介紹、現場案例研究說明 Background description, type, Marine system introduction and field case study of offshore lifting platform by senior crew and engineers	Senior crew or Barge Foreman
抱樁器及翻樁架講解 Explanation of pile gripper and Upending frame	1 day	由現職船員講解及模擬指導操作 Instruction and simulation instruction from current crew members	由資深船員及工程師，針對海上抱樁器及翻樁架的系統、說明與介紹 Description and introduction of offshore pile gripper and upending frame systems by senior crew and engineers	Senior crew or Equipment engineer
打樁相關工作講解 Explain the related work of-piling operation	1 day	由現職船員講解及模擬指導操作 Instruction and simulation instruction from current crew members	由資深船員及工程師，說明打樁作業的進行方式、各項設施的使用時機與目標 Senior crew members and engineers will explain the piling operation, as well as the analysis of the work and the use of facilities and objectives	Senior crew or engineer