

參加中印 BadakIII 及 Badak VI 船岸運輸會議

一、	前 言	Page 1-2
二、	BadakIII 會議記要.....	3-5
三、	Badak VI 會議記要	5-7
四、	心得與建議	7-8
五、	Badak III 會議及 Badak VI 會議附件	9-20

一、前言

中國石油公司配合政府能源多元化之政策，於一九八四年於高雄縣永安鄉沿海地區展開填海造地工程，積極興建永安液化天然氣廠，於一九九〇年三月試車以來，營運至今歷時十多年。

從 LNG 卸收作業、儲存、氣化經由天然氣幹線輸送至顧客使用，均圓滿達成任務，充分供應發電、工業、民生等之需要，且達成政府分散能源的目的。

因 LNG 合約交易一般採長期買賣合約，為使雙方各項業務及 LNG 船航行、進出港、船岸操作、匹配、燃油之供應等問題，舉行定期、不定期會議，並派遣代表研討，以尋求最佳之解決方案。

Badak III LNG 買賣合約為中國石油公司與印尼國家石油簽定之合約，為期二十年，年合約量一五〇萬噸，由 LNG 專用船” Ekaputra “ 在 Bontang 裝載，航行至永安港卸收；Badak VI LNG 買賣合約亦為中國石油公司與印尼國家石油簽定之合約，為期二十年，年合約量一八四萬噸，由 LNG 專用船” Golar Mazo “在 Bontang 裝載，航行至永安港卸收，此 LNG 船本公司有參與投資。

雖然 Badak III 及 Badak VI LNG 買賣合約均為本公司與印尼國家石油簽定之長期合約，但承載之 LNG 船船東、操作人員均不同，故 Badak III 及 Badak VI 合約船岸運輸會議分別召開，議題上亦些許不同；本公司參加此次會議之代表，於會前準備相關資料，互相研討後，以求在該會議中提出適切的問答。

因所有 LNG 買賣合約幾乎均為十五、二十、二十五年等之長期合約，買賣雙方投資巨額金錢，採用定

期、不定期會議研商相關問題，解決買方及賣方對合約執行上之觀點差異，是非常重要的。本次會議買賣雙方，針對相關議題提出討論，經過互相討論溝通，達成結論如後所述。

本次 BadakIII 會議記要摘要於后：

二、 BadakIII 會議記要：

參加此次會議人員，印方有 Pertamina LG/JTG, JMG NGS, 專用 LNG 船船方代表，船務代理及我方人員參加，共計十三位人員。

本次會議之主要研討內容如下：

一、

(一) 永安港航道上漁民佈網及漁船侵入捕魚問題

此問題從永安廠 1990 年開始營運至今，極端困擾船岸雙方，中國石油公司雖然對永安鄉漁民及附近鄉民有補償，但漁民仍以種種理由不定時採取佈網及漁船侵入等方法，阻礙 LNG 船進永安港卸收，不僅影響 LNG 船卸收，亦嚴重影響重要能源之供應及國際形象。

為解決此問題，中國石油公司均尋求方法以減至最少之影響。實際上、當遇到航道上漁民佈網及漁船侵入捕魚問題，本公司告知漁民撤網、撤船，如漁民不予理會，本公司提出訴訟以求解決問題；例如：今年 7 月 27 日，提出訴訟後，檢察官至港逮捕 3 位漁民後解決此海上抗爭問題。

(二) 緊急時(LNG 船繫纜完成後，於卸料期間海氣象變壞因而離港，待海氣象變好後再次繫纜卸料) 港埠費用計費問題

日本姬路、泉北，韓國平澤、仁川 LNG 接收站均無這種問題，但自永安港營運十年以來只有發生二次，且均在颱風季節，以後船岸雙方當再研

究避免發生。

(三) 永安港區利用駁船供應燃油給 LNG 船

岸方告知岸方燃油儲槽依規定每 5 年約需 2-3 個月作開放檢查。

當岸方燃油儲槽作開放檢查時，為避免於高雄港下錨以駁船供應燃油，船方建議採用類似日本中部電力公司之作法，當 LNG 船靠卸時，在第二碼頭供應燃油給 LNG 船。

岸方表示如利用小駁船由高雄港裝載燃油至永安港，可能較危險，且燃油儲槽開放檢查僅 5 年發生一次。

船方希望岸方研討此議題之可行性，如岸方燃油儲槽作開放檢查時，提早於 2 個月前告知船方，使船方有足夠時間安排事先裝載所需燃油。

結論：岸方表示上次燃油儲槽作開放檢查時，儲槽設備狀況良好，現正考慮可否縮短開放檢查時間及延長燃油儲槽開放檢查期間。

因應未來，中國石油公司嘗試依 LNG 船船期預先儲滿燃油於儲槽，使供應更具彈性。

(四) 永安廠液氮供應量之差異

船岸雙方同意在永安港卸收液氮時，共同探究液氮供應量之差異。

(五) 緊急連絡網

岸方提供之緊急連絡網，船方正研討中且將提出船方建議與其標準程序。

二、

(一) 永安港在冬季、夏季之 LNG 船預定靠港時間

船岸雙方同意在不良海氣象天候時，可比永安港在冬季(Pilot on board 07:30)、夏季(Pilot on board 06:30)之 LNG 船預定靠港時間延後到港卸料。

Pilot on board 之時間須於日落前 2 小時。

三、 Badak VI 會議紀要：

參加此次會議人員，印方有 Pertamina LG/JTG, JMG NGS, 專用 LNG 船船方代表，船務代理及我方人員參加，共計十七位人員。

本次會議之主要研討內容如下：

一、

(一) 永安港航道上漁民佈網及漁船侵入捕魚問題

此問題從永安廠 1990 年開始營運至今，極端困擾船岸雙方，中國石油公司雖然對永安鄉漁民及附近鄉民有補償，但漁民仍以種種理由不定時採取佈網及漁船侵入等方法，阻礙 LNG 船進永安港卸收，不僅影響 LNG 船卸收，亦嚴重影響重要能源之供應及國際形象。

為解決此問題，中國石油公司均尋求方法以減至最少之影響。實際上、當遇到航道上漁民佈網及漁船侵入捕魚問題，本公司告知漁民撤網、撤船，如漁民不予理會，本公司提出訴訟以求解決問題；例如：今年 7 月 27 日，提出訴訟後，檢察

官至港逮捕 3 位漁民後解決此海上抗爭問題。
船方建議研究於 LNG 船尚未到達港域時，利用
引導船引導入港域，以避開漁船及漁網。

(二) 永安港區利用駁船供應燃油給 LNG 船

岸方告知岸方燃油儲槽依規定每 5 年約需 2-3
個月作開放檢查。

當岸方燃油儲槽作開放檢查時，為避免於高雄
港下錨以駁船供應燃油，船方建議採用類似日本
中部電力公司之作法，當 LNG 船靠卸時，在第
二碼頭供應燃油給 LNG 船。

岸方表示如利用小駁船由高雄港裝載燃油至
永安港，可能較危險，且燃油儲槽開放檢查僅 5
年發生一次。

船方希望岸方研討此議題之可行性，如岸方
燃油儲槽作開放檢查時，提早於 2 個月前告知船
方，使船方有足夠時間安排事先裝載所需燃油。

結論：岸方表示上次燃油儲槽作開放檢查時，儲
槽設備狀況良好，現正考慮可否縮短開放檢查時
間及延長燃油儲槽開放檢查期間。

因應未來，中國石油公司嘗試依 LNG 船船期
預先儲滿燃油於儲槽，使供應更具彈性。

(三) 船岸消防演習訓練

岸方表明接收站每年進行 2 次船岸消防演
習，作演習訓練需船岸雙方配合執行，岸方將於
演習前 2 個星期前通知船方。上次船岸消防演習
訓練於 2000 年 12 月 2 日實施演練完畢。

(四) 緊急連絡網

岸方提供之緊急連絡網，船方正研討中且將提出船方建議與其標準程序。

(五) 與永安港之通訊

媽祖號(Golar Mazo)號船長表示船方曾以電報與永安港，有時連絡有困難；而船方也需確認電報之功能。岸方已更新電報。

船岸雙方確認現今電報之連絡功能正常。

二、

(一) Golar Mazo 之短管問題

因製造廠依設計圖施工，短管已經退回原製造廠，進貨日期預定為下次到港日期(2000年12月11日)

(二) 簡報永安港未來北防波堤興建計畫及港域範圍

(三) 簡報檢察官排除漁網、漁船侵入永安港域之問題

四、心得與建議

此次會議中，雙方對議題充分溝通意見，以便解決相關問題，大部份議題得到雙方認同之解決方案，仍有少數議題須持續研討，無法立刻解決，待經雙方努力研究後，再尋求解決之道。

經雙方業務連繫及會議達成結論後，對執行 LNG 合約及運輸、匹配、靠泊卸收等，透過緊密互相配合，安全、順利地完成裝載及卸收任務

印方代表於會中非常歡迎我方派遣相關工程師及操作人員隨 LNG 船至印尼裝載港見習觀摩，以增進雙方技術交流，提升我方操作、營運等之水準。

**MINUTES OF MEETING
BADAK III TRANSPORTATION MEETING
Bali, 05 - 07 December 2000**

Opening Remarks :

Mr. Zacharias Liando as the Acting General Manager of Pertamina LG/JTG has opened the meeting with CPC and all parties - Welcome and overall meeting agenda reviewed.

1.1 Fishing Nets and Fishing Boats in the Fairway at Yung An

Shoreside informed that they continue to address this issue with Kaohsiung County government and local fisherman group. Shoreside acknowledge that the port authority under the Minister of Communication is fully aware of the fishing nets and boats in the Yung An area.

Shoreside also informed that by end of 2000, a new breakwater is planned to be constructed in order to restrict the fishermen entering the fairway at Yung An. The new facility will be completed in 2004.

Shipside understands the situation faced by CPC since the beginning of Badak III project and proposed to CPC to try involve CPC's customers to get the support from them as in the case of Korea Gas's similar problem for its project in the past.

Conclusion of Meeting :

To cope with this situation, CPC has set out counteract measures in order to minimize the extend of impact. In practice CPC seeked solution by sueing fishermen if they do not dismiss after CPC giving them notice to retreat. For example, on July 27th, 2000 CPC reported to court and prosecutor arrested 3 fishermen and settled the problem. Afterwards, it did not happen again. CPC thinks this is the effective way for solving this kind of problem.

Pending

1.2 Yung An Terminal's Port Charges in Emergency Cases

Shipside advise that Japan and Korea have certain procedures to address double berthing based on port of authority regulation. The Shipside had never experienced double berthing charges in those ports.

Shoreside mentioned that the “ Emergency Cases” for the double berthing has occurred during in typhoon season where the unloading operations are considered to be unsafe. Shoreside will visit Japanese and Korea ports to study the similar issues faced by the ports.

Shoreside will notify shipside for the results of the study.

Conclusion of Meeting :

CPC sent a group of 4 to visit Himeji terminal , Senboku terminal of Osaka Gas Company in May this year and has learnt Double Berthing never happened so far in their terminals. Also they visited Pyeong Taek and Inchon terminal in Korea with the same answer.

Closed

1.3 FO Supply to LNG Vessel by Barge at Anchorage Area

Shoreside informed that the FO overhaul would be required every 5 years for 2-3 months. However, in rare occasions there will be short time for maintenance.

To avoid the LNG vessel anchoring and bunkering by barge at Kaohsiung when the FO facilities at Yung An are undergone repair, Shipside proposed to use barge on the second berth to load FO when the LNG vessel is berthing, similar to Kawagoe (Chubu Electric) terminal bunkering operation. Shoreside commented that it would probably dangerous operation since the small barge has to travel from Kaohsiung port to Yung An. In addition, the occurrence will happen approximately once every 5 years.

Shipside would like to have Shoreside to study such possibility and Shipside would like to have 2 months notice from Shoreside prior to the repair in order to have sufficient time for the LNG vessels to fill-up their bunker supply tanks such that the vessels would not require additional bunkering during the repair.

Conclusion of Meeting :

Shoreside explained that the last overhauling of the FO Tank has revealed a good condition of the equipment. They are currently investigating to reduce the duration of overhauling and increase the interval between overhaulings.

For the future, CPC will try to provide more flexibility to shipside, by anticipating the replenishment of their FO storage tank, using the annual bunkering plan of the ships.

Pending

1.4 Differences of LN2 Figures at Yung An

It was agreed that to satisfy both parties, both shoreside and the vessel Master to sign the document regarding the LN2 supply quantity. This data will then use for the study by both parties.

Conclusion of Meeting :

Shipside & Shoreside agreed to investigate further for the reason of the discrepancies between ship and shore figures during the supply of LN2 at Yung An

Pending

1.5 Emergency Communication Routes at Yuang-An Terminal

Proposal from Shoreside is under review from Shipside. Shipside will provide their comments and standard procedure

Pending

2. NEW ITEMS

2.1 ETA Pilot Station at Yung An during Winter & Summer Time.

Ship & Shoreside agreed that in case of bad weather the ship can arrive later than the current practice with POB at 07.30 LT (Winter) and POB at 06.30 LT (Summer)

The POB deadline is 2 hour before sunset

Closed

2.2 Information of the north breakwater construction and Port Boundary

Revert to the item no 1.1The fishing net and Boats in the fairway at Yung An.

2.3 Report that The prosecutor disposed of the fishing nets and fishing boats

Revert to the item no 1.1The fishing net and Boats in the fairway at Yung An.

CHINESE PETROLEUM CORPORATION

PERUSAHAAN
PERTAMBANGAN
MINYAK DAN GAS
NEGARA

(PERTAMINA)

Chung-Long Lee

Plant anager
Yung-An LNG Plant

Zacharias Liando

Act. General Manager
Pertamina LG/JTG

BADAK III-6TH TRANSPORTATION MEETING
DENPASAR, BALI - INDONESIA
ABSENCE LIST

Mr. Ifwandi Maas

Mr. F. Hannon

Mr. Zacharias Liando

Mr. Sardjito Supardan

Capt. G.Hinata

Mr. Ismartono

Mr. Dicky S. A

Capt. S. C. Yang

Mr. Shih-Wen, Tseng

Mr. Yeung-Jong, Lai

Mr. Chung-Long,
Lee

Mr. Y. L Chuang

Ms. Iwen, Wu

**MINUTES OF MEETING
BADAK VI-1ST TRANSPORTATION MEETING
Bali, 05 - 07 December 2000**

Opening Remarks :

Mr. Zacharias Liando as the Acting General Manager of Pertamina LG/JTG has opened the meeting with CPC and all parties - Welcoming and review or overall meeting agenda.

Mr. C.L.LEE. – Yung-An Plant Manager, Thank you and highlights of longterm relationship between Pertamina and CPC were presented.

I.1 Fishing Nets and Fishing Boats in the Fairway at Yung An

Shoreside informed that they continue to address this issue with Kaohsiung County government and local fisherman group. Shoreside acknowledge that port authority under the Ministry of Communication is fully aware of the fishing nets and boats in the Yung-An area.

Shoreside also informed that by end of 2000, a new breakwater is planned to be constructed in order to restrict the fisherman entering the fairway at Yung-An. The new facility will be completed in 2004.

Shipside understands the situation face by CPC since the beginning of Badak III project and proposed to CPC to try to involve CPC's customers to get the support from them as in the case of Korean Gas Corporation's similar problem for its project.

Shipside mentioned that on occasional basis there were Naval activity exist when the Golar Mazo is approaching the pilot station of Yung-An. The fog during winter time makes the fishing net problem worsen.

Shoreside explained that the Yung-An terminal has the authority inside the harbour boundary, beyond the harbour boundary are public channels. The Ship Agent informed that the Naval base is about 10 km away from Yung-An.

Conclusion of Meeting :

To cope with this situation, CPC has set out counteract measures in order to minimize the extend of impact. In practice CPC seeked solution by sueing fishermen if they do not dismiss after CPC giving them notice to retreat. For example, on July 27th, 2000 CPC reported to court and prosecutor arrested 3 fishermen and settled the problem. Afterwards, it

did not happen again. CPC thinks this is the effective way for solving this kind of problem.

Ship Manager suggested to investigate the use of an escort boat, prior to the entrance of the ship in to Port boundaries, to repulse the fishing boats.

Pending

I.2 FO Supply to LNG Vessel by Barge at Anchorage Area

Shoreside informed that the FO overhaul would be required every 5 years for 2-3 months. However, in rare occasions there will be short time for maintenance.

To avoid the LNG vessel anchoring and bunkering by barge at Kaohsiung when the FO facilities at Yung An are undergone repair, Shipperside proposed to use barge on the second berth to load FO when the LNG vessel is berthing, similar to Kawagoe (Chubu Electric) terminal bunkering operation. Shoreside commented that it would probably dangerous operation since the small barge has to travel from Kaohsiung port to Yung An. In addition, the occurrence will happen approximately once every 5 years.

Shipperside would like to have Shoreside to study such possibility and Shipperside would like to have 2 months notice from Shoreside prior to the repair in order to have sufficient time for the LNG vessels to fill-up their bunker supply tanks such that the vessels would not require additional bunkering during the repair.

Conclusion of Meeting :

Shoreside explained that the last overhauling of the FO Tank has revealed a good condition of the equipment. They are currently investigating to reduce the duration of overhauling and increase the interval between overhaulings.

For the future, CPC will try to provide more flexibility to shipperside, by anticipating the replenishment of their FO storage tank, using the annual bunkering plan of the ships and refilling the FO storage tank after each use.

Pending

I.3 Ship/Shore Fire Drill

Shoreside informed that the terminal is used to conduct fire drill twice a year. The fire drill needs to be carried out by both sides when necessary. Shoreside will inform Shipperside in advance (within 2 weeks) when the plan is firmed.

Conclution of Meeting :

The Fire Drill has been carried out in the morning of Dec 2nd 2000

Closed

II.1 Emergency Communication Routes at Yung An Terminal

Shoreside proposed a chart of emergency communication routes at Yung-An terminal. Shipperside will study the proposal and will comment later.

Conclution of Meeting :

Proposal from Shoreside is under review from Shipperside. Shipperside will provide their comments and standard procedure

Pending

II.2 Communication with Yung-An Terminal

Master of Galar Mazo evidenced that ship experienced difficult estabilishing communication with Yung-An terminal and Agent by telex. Yet, ship can receive message from outside station. As telex is more reliable as means of communication, it is urged that maker shoul be consulted to check shipboard telex machine to ensure proper function.

Shoreside explained that the old telex machine will be replaced in the near future.

Conclution of Meeting :

Ship and Shoreside confirmed that the communication by telex is correctly performing nowadays

Closed

II.3 The Crew on Board Operations Performance

Explanations have been provided accordingly

Closed

2.1 Spool Pieces for Golar Mazo

Supplied spool pieces have been returned to the Maker's, as they were not in conformity with design drawings. The delivery date is of new spool pieces expected on next call at Yung-An (Dec 11th , 2000).

Pending

2.2 Yung-An Chiksan Failure

Shoreside explained the incident, the help from Shipline to repair (use of ship's crane), and the routine maintenance steps to avoid such incident in the future

Closed

2.3 Enlarge Sliced Repeater Indicator of Gyro Compass Repeater on Portside or Starboardside of Golar Mazo

Shoreside explained that the request comes from Pilots. Further investigation is to be carried out by Shipline with the Maker of equipment.

Pending

2.4 Safety & Double Berthing at LNG Terminal

PT. Badak delivered a presentation as per attachment

Closed

2.5 The Possibility for night berthing at Yung Port.

For emergency cases or in case of unexpected delays, Shoreside is studying the possibility of night berthing, by improving the lighting of the berths and reviewing other mooring operations

Shipside's concern is mostly concentrated on possible problems with fishermen

Pending

2.6 Communications by VHF with Yung-An Terminal

Presently there is no VHF Communication between Ship and Terminal, one hour before POB time to get latest information and berthing conditions.

Communication is established only by walkie-talkie, a few minutes before Pilot on Board. On a temporary basis, before installing a VHF link at Terminal, Shoreside suggests Shipside to contact the terminal Tugboats, Channel 16

Pending

OTHERS

Number of mooring Masters (2) at Yung-An

Shipside inquired for need of using (2) Mooring Master at Yung-An, Shoreside explained that it is for safety reasons

To be further investigated by Shoreside

Pending

CHINESE PETROLEUM CORPORATION

PERUSAHAAN
PERTAMBANGAN
MINYAK DAN GAS
NEGARA

(**PERTAMINA**)

Chung-Long Lee

Plant Manager
Yung-An LNG Plant

Zacharias Liando

Act. General Manager
Pertamina LG/JTG

BADAK VI-1st TRANSPORTATION MEETING

DENPASAR, BALI - INDONESIA

ABSENCE LIST

Mr. Ismartono

Mr. Ifwandi Maas

Mr. Sardjito S

Mr. F. Hannon

Mr. Zacharias Liando

Mr. M. Moulding

Dr. S.J. Chuu

Mr. Firmansyah R

Capt. H. Oestmark

Mr. Iswan Priady

Mr. Dicky S. A

Capt. S. C. Yang

Mr. Shih-Wen, Tseng

Mr. Yeung-Jong, Lai

Mr. Chung-Long,
Lee

Mr. Y. L Chuang

Ms. Iwen, Wu