

Research on Ship Fuel Procurement and Regulatory Strategies

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Abstract: In recent years, fuel prices have been constantly changing with the international situation. For shipping production and operation enterprises, to achieve stable operation and sustainable development, they must be meticulous in budgeting. The ship fuel procurement department should have a clear understanding of the quality, price, specifications, and market reputation of the fuel supply enterprise in actual procurement management work, and strictly control them. Only in this way can we purchase the most cost-effective ship fuel, which can help the long-term development of shipping production and operation enterprises. This article analyzes the management and regulatory strategies for ship fuel procurement, for reference by relevant enterprises and procurement personnel, with the aim of improving the effectiveness of ship fuel procurement management.

1. Introduction

In recent years, with the rapid development of China's social and economic progress, the maritime transportation industry has gradually grown, and the demand for maritime transportation in various fields of the market has been continuously increasing ^[1]. Maritime transportation mainly utilizes ships to transport goods at sea, which can to some extent alleviate the problem of a single mode of cargo transportation in China. Maritime transportation operations will involve ship refueling and fuel procurement issues. However, as maritime shipping is inherently a low-profit business, it is necessary to do a good job in cost management to improve the economic benefits of transportation enterprises and lay a solid foundation for their stable operation and long-term development. Faced with the constantly soaring fuel prices, various shipping companies should strengthen their management of ship fuel procurement, improve the rationality and feasibility of procurement, reduce procurement costs, and create favorable conditions for the survival and progress of enterprises.

2. Clarify the Purpose and Scope of Ship Fuel Procurement

Firstly, the main purpose of organizing the procurement of ship fuel is to strengthen the company's ship fuel management, ensure fuel quality and timely supply, maximize the satisfaction of the company's production and operation needs, reasonably reduce ship fuel costs and improve enterprise economic benefits. According to the *Fuel Supply Strategic Cooperation Agreement* and *Ship Fuel Purchase and Sales Management Procedure* signed between China Communications Corporation and China Shipbuilding Fuel Co., Ltd., each company formulates ship fuel procurement plans based on actual situations. Secondly, the scope of application is that the company needs to clarify which field the purchased fuel is mainly used in, which type of ship has better fuel loss during use, identify the reasons, and improve the utilization rate of ship fuel ^[2]. Thirdly, it is important to clarify how to use ship fuel, which includes light diesel, heavy diesel, fuel oil, and other marine fuels that meet national government departments and industry standards.

3. Scientific Divide Main Responsibilities

Firstly, scientifically divide the main responsibilities of the company's material management

department. In practical work, material management work should deeply implement the *Fuel Supply Strategic Cooperation Agreement*, *Ship Fuel Purchase and Sales Management Procedure*, and relevant management systems formulated by China Communications Corporation. Then, based on the actual situation of the company, the staff can scientifically formulate a procurement management system and organize its implementation to provide consulting and guidance services for subsidiary and branch companies in ship fuel procurement business. If necessary, they can inspect and supervise procurement behavior. The material management department is responsible for preparing the company's annual/monthly ship fuel demand plan form, last month's ship fuel procurement situation form, ship fuel loss report, etc., and submitting them to the finance department and superior management department in a timely manner. Secondly, scientifically divide the main responsibilities of subsidiaries or branches. Subsidiaries or branches are mainly responsible for implementing various management systems related to ship fuel and organizing ship fuel procurement activities^[3], responsible for comparing and consulting market prices for ship fuel procurement. According to the actual situation of the location or the place where the ship is used, they should sign a ship fuel procurement contract with the supply enterprise of China National Gas Corporation, settle the fuel payment with the supply enterprise in a timely manner, carry out the preparation of the company's ship fuel supply plan, statistics, and summary reports, coordinate and handle various problems in the process of purchasing and selling ship fuel, ensuring the smooth progress of procurement work.

4. Strengthen the Management of Ship Fuel Procurement

4.1 Reasonably Select Ship Fuel Suppliers for Cooperation

Firstly, when organizing ship fuel procurement activities, subsidiaries or branches should follow the principle of "comparing prices with three suppliers" for procurement price comparison and inquiry. China National Natural Gas Corporation (CNOOC) is the main supplier of ship fuel for China Communications Corporation (CCCC), and subsidiaries or branches can choose to cooperate with it on an optimal basis^[4]. Secondly, during the procurement of ship fuel by CNOOC, subsidiaries or branches should promptly sign ship fuel procurement contracts with the corresponding fuel supply enterprises. Thirdly, in principle, the ship fuel procurement contract should be designed in accordance with the *Ship Fuel Procurement Management Procedure of China Communications Corporation and China National Gas Corporation*. Subsidiaries or branches may make appropriate adjustments and supplements to the contract content based on actual conditions such as region, project type, and fuel demand.

4.2 Compare the Purchase Prices of Ship Fuel

Firstly, subsidiaries or branches shall consult with relevant fuel supply enterprises of China National Gas Corporation on prices through written reports, telephone consultations, etc. based on refueling orders and plans proposed by project departments and shipping units. The inquiry content should include fuel types, quantities, geographical location of gas stations, refueling dates, etc. In addition to responding to the above inquiries, fuel quality inspection reports should also be provided when necessary in the quotation content. Secondly, daily oil orders from subsidiaries or branches should be submitted in the form of refueling orders to relevant fuel supply enterprises of China National Gas Corporation at least 3 working days in advance. Thirdly, during the procurement process of ship fuel, it is completed in the form of refueling orders and refueling confirmation orders, which can be regarded as fuel supply contracts and have legal effect. Subsidiaries or branches confirm fuel orders from each project department based on price inquiries and forward them to the corresponding fuel supply enterprises^[5]. Fourthly, the content of the refueling order should include order number, name of the receiving vessel, refueling location, estimated refueling time, refueling type, refueling quantity, contact person and phone number, etc., then submit to the project department for confirmation and signature, and the subsidiary's centralized management department will stamp and take effect.

4.3 Timely Check and Accept Ship Fuel Quality

Firstly, before officially supplying fuel to the vessel, the fuel supply measurement personnel and the management personnel of the receiving vessel should jointly measure the storage capacity, flowmeter reading, and other information of the vessel. Then, based on the principal diagram technology of the fuel pipeline path, they should conduct inspections on the closing and opening of various components for transporting fuel. The oil receiver has the right to inspect the storage capacity or flowmeter inspection report used by the supplier for measurement and settlement, to ensure the authenticity and compliance of the report to the greatest extent possible. Secondly, during the fuel supply process, both parties shall appoint personnel to jointly supervise. At the same time, necessary protective measures should be taken according to refueling operations to avoid ecological and environmental pollution problems during the refueling process. After the first vessel has been refueled, the on-site staff should not pay attention to the urging of the refueling vessel or rush to measure. The draft difference of the receiving vessel should be checked first, and measurement and calculation should be carried out after the oil and gas in the oil tank have stabilized, in order to avoid blowing air during the oil measurement process of the oil barge ^[6]. Once this situation occurs, it is easy for errors to occur after connecting the fuel supply barges of the two ships for refueling, making it difficult to confirm responsibilities. Thirdly, when the oil supply vessel supplies oil to the receiving vessel, it shall provide a quality inspection report for this batch of fuel. At the same time, oil supply vessels should take oil samples for quality testing and sealing for future reference in accordance with relevant procedures in the presence of responsible persons from both the supply and the receiving parties. Using an oil sampling device, the entire process is sampled dropwise. Finally, the sample oil is shaken evenly and divided into two containers labeled with the same label. Both parties sign and confirm on the label, keeping one copy each. This can avoid situations where some dishonest fuel suppliers change their fuel temporarily, and also provide legal basis for ships to claim compensation from fuel suppliers for safety accidents caused by the use of this fuel.

5. Ship Fuel Settlement Management

Firstly, after the refueling is completed, the responsible persons of both the supplier and the receiver shall jointly measure. The fuel supplier shall provide a standard refueling voucher and make several copies of the voucher. After both parties sign and confirm, it shall be used as the original voucher for the settlement of the ship's fuel procurement. Secondly, subsidiaries or branches should establish a comprehensive ledger for ship refueling business, which should include order number, refueling supply vessel number, refueling receiving vessel number, refueling location, order occurrence practice, actual refueling time, fuel type, order application quantity, actual refueling quantity, fuel price, invoice number, etc. Within 5 working days after each refueling, the corresponding fuel supply enterprise of China National Gas Corporation shall send a copy of the invoice, refueling voucher, etc. to the subsidiary's centralized management department by fax. Thirdly, both the supply and demand parties should strictly follow the provisions of the procurement contract, conduct fuel business reconciliation work before the settlement date, clarify the details of the fuel bill, such as the time and place of refueling, variety, actual quantity, etc. After verification, both parties shall sign and confirm, and each party shall hold one copy as proof of payment and receipt. Fourthly, it is feasible to design the 25th of each month as the fuel payment settlement day, and postpone it in case of holidays. China National Natural Gas Corporation's fuel supply enterprises and subsidiaries or branches shall conduct unified accounting settlement. Subsidiaries or branches shall pay the fuel payment in full before the settlement date after receiving the detailed fuel settlement bill.

6. Uniformly Manage Ship Fuel Plan

Firstly, subsidiaries and branches should draft the next month's ship fuel procurement plan based on the actual situation before the 25th of each month, and promptly notify the corresponding fuel

supply enterprises of China National Gas Corporation. They should report the previous month's ship fuel procurement situation before the 25th of each month. Secondly, subsidiaries or branches are required to complete the annual fuel consumption statistics report for their own ships before December 25th each year, prepare the next year's ship fuel usage and procurement plan, and submit it to the higher-level management department for review.

7. Conclusion

In summary, organizing and carrying out effective management of ship fuel procurement has strong practical significance for the stable operation and sustainable development of enterprises related to maritime transportation and ship use. On the one hand, it can help subsidiaries and branches to reasonably reduce the cost of ship fuel procurement and improve the overall economic benefits of the enterprise. On the other hand, procurement management can maximize the ensure of fuel quality and enhance fuel availability. Based on this, the ship fuel procurement department should formulate a fuel procurement plan based on actual business needs and the fuel consumption situation of different ships, and submit it to the higher-level supervisory department for review. After the review is correct, it should be submitted to the finance department to allocate procurement funds. In the actual procurement process, the staff should shop around and compare prices, sign procurement contracts and pay oil payments in a timely manner to ensure the smooth implementation of ship fuel procurement management.

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