Executive Summary

An Offshore Supply Vessel (OSV)

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Background

Oil and Natural Gas Corporation Limited (ONGC) is an integrated Exploration and Production Company (hereinafter referred to as 'Company') which is presently carrying out production activities in the Western Offshore of the country and exploration activities in the Eastern Offshore, where it has discovered gas fields. Monetization of these discoveries is underway. During 2017-18, the Company had 17 offshore platforms and deployed 36 offshore drilling rigs in the Western Offshore area and three unmanned platforms and five drilling rigs in the Eastern Offshore area. The Marine Logistic Services of the Company provide vital support to these offshore platforms and rigs through vessels storing and supplying various types of materials/ equipment required for smooth exploration and production operations. The performance of Marine Logistics Operations of the Company in the western offshore was reviewed by the Comptroller and Auditor General of India in Audit Report No. 4 of 2002 and the action taken on the Report were discussed in Report No.6 of 2005 (Commercial). This Report examines status of audit observations of earlier two reports as well as performance in additional areas including the shorebase management covering the period 2012-13 to 2016-17.

Planning for vessels

In Western Offshore, the actual strength of vessels deployed for marine logistic operations was less than the approved strength during the period from 2012-13 to 2015-16. Shortage of vessels was noticed in Eastern Offshore also during the years 2015-16 and 2016-17.

The Company had not planned for adequate number of Offshore Supply Vessels (OSVs) resulting in compromise of mandatory safety (standby) duty. While planning the number of OSVs for deployment, the Company ignored the delay in delivery of new vessels by Pipavav Shipyard Limited (PSL).

(Para 3.1)

The Company planned to reduce two Platform Supply Vessels (PSVs) from its fleet to effect economy in operations. However, it reduced two OSVs in place of two PSVs. Considering the ineffective utilization of PSVs, the decision to reduce OSVs instead of costlier PSVs is likely to impact standby duties and increase the cost of operations by ₹25.99 crore.

(Para 3.2)

Acquisition and hiring of vessels

The Company awarded construction of 12 new vessels to an inexperienced contractor, M/s. Pipavav Shipyard Limited (PSL) solely on the basis of experience of the foreign technical collaborator of the contractor. Against scheduled delivery of 12 vessels by December 2011, the contractor could deliver only seven vessels by March 2018. The company terminated the contract in July 2018.

(Para 4.1)

The Company decided to procure High Flash High Speed Diesel (HFHSD) on water front delivery basis to save on payment of value added tax and entry tax. This required hiring of oil tankers. Audit noticed inordinate delay in finalization of tender for hiring of tankers. Meanwhile, the Company hired oil tanker B.C. Chatterjee from Shipping Corporation of India on nomination basis. However, the Company was forced to procure HFHSD from costlier alternative through land route due to frequent failure of the hired oil tanker, incurring additional cost of ₹163.44 crore. Further, as against a requirement of two barges for movement of oil from tanker to vessels, the Company hired only one barge and failed to deploy additional barge leading to an extra expenditure of ₹307.58 crore.

(Para 4.2.2 and 4.2.3)

Deployment of vessels

The Company did not implement recommendations of the consultant to schedule vessels on a fixed basis than on an ad-hoc basis in order to reduce the turnaround time of vessels. The excess vessel trips to drilling rigs as compared to average trips made by vessels to similar type of rigs in European waters indicate an increased cost of ₹376.10 crore to the Company.

(Para 5.1)

Standby support was required to be provided by OSVs. However, PSV (with higher day rate) meant for supply duty, were being increasingly deployed for standby duty at Western Offshore which led to increase in cost of logistic operation of ₹181.72 crore.

(Para 5.2)

The utilization of deck space was below optimum levels and was also not properly verified. Use of containers and Cargo Carrying Units (CCUs) for loading on vessels leading to improved deck space utilization was not implemented. Substantial portion (52 *per cent*) of bulk cargo carried was returned undelivered as Return on Board. Loading of undelivered/excess cargo led to increase in turnaround time (TAT) at port and additional fuel consumption during voyage.

(Para 5.4 and 5.5)

The Company did not have an effective monitoring/control mechanism in place to check the HFHSD consumption by chartered vessels which was supplied free of cost. Failure to mobilize requisite vessels, high vessel down-time and lack of co-ordination resulted in high rig downtime in Eastern Offshore and consequent avoidable expenditure of ₹30.84 crore on rig day rate charges.

(Para 5.7 and 5.8)

Supply Base Management

Failure to limit the Turnaround time (TAT) to global norm of 6 hours at the shorebase resulted in extra operational cost of ₹181.78 crore during the period from 2012-13 to 2016-17.

(Para 6.1)

Nhava Supply Base (NSB) is presently managing with fragile infrastructure and outdated system resulting in increased cost of operations and increase in vessel requirement. NSB up-gradation project, though initiated in 2003, is yet to be implemented. This delay led to operational constraints affecting the TAT. The Company (September 2013) assessed an annual saving of ₹20 crore if alternate supply base was set up at Pipavav. Though the Company approved the proposal in July 2015 and envisaged operation at the new supply base from February 2016, no further progress was made till date (January 2018). Delay in setting up a supply base as an alternative to NSB led to foregoing of estimated benefits of ₹41.75 crore.

(Para 6.2)

Around 83 *per cent* of water supplied to NSB by MIDC through pipeline was tapped en-route. Water-Makers installed on owned rigs/platforms were either non-operational or production of water was below the desired levels. Insufficient supply of water at NSB adversely affected the offshore operations.

(Para 6.3)

Lack of internal control at NSB and inadequate physical verification of stores and spares led to the stock account remaining unreconciled and disparity in consumption of stores. Independent verification carried out in April 2017 pointed out that stock was being kept in open area without any segregation between scrap and usable material. Record of materials sent to agencies outside NSB for repairs was not maintained in the SAP system. Some of the items had not been received even after 2 years against the norm of 90 days.

(Para 6.4, 6.5 and 6.6)

Safety, security and environment

Non adherence to procedures laid down in Marine Operations Manual by vessel operators and selective adoption of guidelines lead to compromise of safety in Marine logistics operations. There was lack of dedicated fire water network in NSB and security system was also inadequate.

(Para 7.1 and 7.3)

ONGC does not have a separate marine cadre to supervise quality of services provided by its Operation and Maintenance contractor and to ensure adherence to standards defined by the Company for chartered vessels.

(Para 7.4)

The Strategic Business Units (SBUs) of the Company proposed and adopted soft targets which were not optimized based on actual achievement. There was absence of targets of individual with that of SBU as a whole (SLA/PC). The performance contract of Eastern Offshore did not measure the marine operations at Eastern Offshore.

(Para 7.6)

The financial impact of the audit findings in this report is ₹2021.19 crore (consisting of ₹1716.57 crore on account of excess expenditure/cost of operations and ₹304.62 crore on account of revenue foregone/loss of interest).

Overall conclusion

The company did not plan effectively and hire vessels in time. The efficiency of logistics operations suffered from lack of vessel scheduling, monitoring of fuel consumption by vessels, optimum utilization of vessels for duties earmarked and due to substantial return on board cargo. The Turnaround time of the vessels at shorebase was higher than the international *benchmarks due to the fragile infrastructure at the base, and delays in shorebase up-gradation. Concerns regarding safe operations of the vessels remained to be addressed comprehensively.*

Recommendations

Audit recommended the following:

1. *Assessment of vessel requirement should be reviewed with reference to the Annual drilling plan.*
2. *Introduce fixed scheduling of vessels and improve the planning for prompt delivery of the required cargo by coordinating with the duty stations/users thereby avoiding redundant vessel trips. Deploy Platform Supply Vessels for supply duty in place of Offshore Supply vessels.*
3. *Use of Cargo Carrying Units (CCUs) for optimum deck space utilization may be considered. Ensure that loading of bulk cargo is restricted to field requirements and to meet consumption by the vessel.*
4. *Include cost and consumption pattern of HFHSD by the vessels as a parameter in evaluation of the bids for hiring of vessels.*
5. *Finalize and implement Standard Operating Procedures for Shorebase Operations. Take steps, within the framework of agreement with M/s. Kakinada Seaports Limited (KSPL), to reduce the Turnaround Time at Kakinada Supply Base (KSB) by optimising operations.*
6. *Devise and implement an integrated up-gradation plan for Nhava Supply Base (NSB) in line with the international best practices, and operate NSB as an integrated Material Management warehouse. Evaluate alternative options to ensure timely and adequate supply of water for offshore operations.*
7. *Ensure full compliance with the safety, rescue and emergency response standards adopted by the Company. Develop a cadre of marine professionals with vessel related competency.*

Response of the Ministry

The Ministry of Petroleum and Natural Gas (MoPNG) accepted all the recommendations and issued (December 2017) specific directions to Company to ensure compliance with the recommendations in a time-bound manner.

The Ministry also directed Company to (i) prepare Standard Operating Procedures for supply of material for offshore operations, (ii) take necessary action for modernization of supply bases for offshore operations including NSB as per international standards and best practices including inventory management through relevant software, (iii) ensure compliance with statutes, rules and regulations governing environment, safety and security of installations, and (iv) strengthen the offshore operations by deploying adequate manpower including marine professionals for monitoring of quality of services provided by the O&M contractors.

Audit appreciates the positive response from the Ministry.