

**DREDGING CORPORATION OF
INDIA LIMITED**



**ISO 9001:2008
OPERATIONS DEPARTMENT
VESSEL MANUAL**

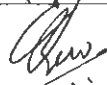
SECTION 1.01	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

CONTROLLED COPY

ISSUED TO : ORIGINAL

ISSUE NO. : 02


DATE : 12-04-2010

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>FHS</u>		REV. : DATE :	00 12-04-10

SECTION 1.02	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---


I.02 C O N T E N T S:

SECTION NO.	SECTION	PAGE NO.	REVISION NO.	REVISION DATE
1.01	CONTROL SHEET	1 OF 1	00	12-04-10
1.02	CONTENTS	1 OF 2 2 OF 2	00 00	12-04-10 12-04-10
1.03	REVISION RECORD SHEET	1 OF 1	00	12-04-10
1.04	CONTROLLED COPY HOLDERS	1 OF 1	00	12-04-10
1.05	ABBREVIATIONS	1 OF 3 2 OF 3 3 OF 3	00 00 00	12-04-10 12-04-10 12-04-10
1.06	INTRODUCTION	1 OF 1	00	12-04-10
2.01	VESSEL OBJECTIVES	1 OF 1	00	12-04-10
2.02	VESSEL ORGANOGRAM	1 OF 1	00	12-04-10
2.03	RESPONSIBILITIES & AUTHORITIES	1 OF 6 2 OF 6 3 OF 6 4 OF 6 5 OF 6 6 OF 6	00 00 00 00 00 00	12-04-10 12-04-10 12-04-10 12-04-10 12-04-10 12-04-10
3.00	PROCESS CHARTS:			
3.01	TSHD DREDGING CYCLE	1 OF 1	00	12-04-10
3.02	CSD DREDGING CYCLE	1 OF 1	00	12-04-10
3.03	RUNNING REPAIRS ON DREDGERS	1 OF 1	00	12-04-10
3.04	DRY-DOCKING REPAIRS	1 OF 1	00	12-04-10
4.00	ACTIVITIES:			
4.01	ACTIVITIES ON BOARD DREDGERS	1 OF 1	00	12-04-10
4.02	SAILING PREPARATIONS / VOYAGE	1 OF 1	00	12-04-10

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 2 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 1.02	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

4.03	REPORTING OF DREDGER PERFORMANCE	1 OF 1	00	12-04-10
4.04	PREPARATIONS FOR DREDGING	1 OF 1	00	12-04-10
4.05	CLASSIFICATION SURVEYS	1 OF 2	00	12-04-10
		2 OF 2	00	12-04-10
4.06	MEASUREMENT AND ANALYSIS	1 OF 1	00	12-04-10
5.0	ANNEXURES:			
5.01	EQUIPMENT MAINTAINED BY VESSEL	1 OF 1	00	12-04-10
5.02	DOCUMENTS MAINTAINED BY VESSEL	1 OF 2	00	12-04-10
		2 OF 2	00	12-04-10
5.03	FORMATS MAINTAINED BY VESSEL	1 OF 8	00	12-04-10
		2 OF 8	00	12-04-10
		3 OF 8	00	12-04-10
		4 OF 8	00	12-04-10
		5 OF 8	00	12-04-10
		6 OF 8	00	12-04-10
		7 OF 8	00	12-04-10
		8 OF 8	00	12-04-10

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	2 OF 2 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

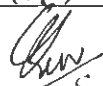
SECTION 1.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

1.03 REVISION RECORD SHEET:

When it becomes necessary to revise the contents of this manual, corrections are made by HOD(Ops) and approved by MR and the new page (s) in the relevant section are issued.

These corrected pages bear revision No. and date and are entered on this Revision Record Sheet. The recipient shall insert the revised sheet(s) and remove the old pages and send them to HOD(Ops), who maintains a record towards this, to ensure inadvertent use.

Sl. No.	Sec. No.	Page No.	Issue No.	Revision No.	Date	Revision Description

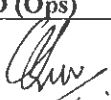
PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 1.04	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

1.04 CONTROLLED COPY HOLDERS :

The following Personnel at H.O., P.O.s and Vessels are issued the controlled copy of this manual:


CONTROLLED COPY No.	DESIGNATION
Original	HOD (Ops)
1.	CMD
2.	DFN
3.	DOT
4.	CVO
5.	MR
6.	PIC, HALDIA
7.	PIC, PARADIP
8.	PIC, VISAKHAPATNAM
9.	PIC, MANGALORE
10.	PIC, MUMBAI
11.	PIC, GOA
12.	MASTER , DREDGE-V
13.	CEO, DREDGE-V
14.	MASTER , DREDGE-VI
15.	CEO, DREDGE-VI
16.	MASTER , DREDGE-VII
17.	CEO, DREDGE-VII
18.	MASTER , DREDGE-VIII
19.	CEO, DREDGE-VIII
20.	MASTER , DREDGE-IX
21.	CEO, DREDGE- IX
22.	MASTER , DREDGE-XI
23.	CEO, DREDGE- XI
24.	MASTER , DREDGE-XII
25.	CEO, DREDGE-XII
26.	MASTER , DREDGE-XIV
27.	CEO, DREDGE-XIV
28.	MASTER DREDGE-XV
29.	CEO, DREDGE-XV
30.	MASTER , DREDGE-XVI
31.	CEO, DREDGE-XVI
32.	MASTER , DREDGE-XVII
33.	CEO, DREDGE-XVII
34.	MASTER , DR AQUARIUS
35.	CEO, DREDGE-AQUARIUS
36.	MASTER , DCI TUG-VII
37.	CEO, DCI TUG-VII

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 1.05	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---


1.05 ABBREVIATIONS:

AMC	: ASSISTANT MANAGER (CONTRACTS)
AMS	: ASSISTANT MANAGER (SURVEY)
BCD	: BELOW CHART DATUM
BG	: BANK GUARANTEE
BM	: BENCH MARK
BUNKERS	: SUPPLY OF FUEL AND LUB. OILS
CA	: COMPETENT AUTHORITY
CD	: CHART DATUM
CEO	: CHIEF ENGINEER OFFICER
CH.O	: CHIEF OFFICER
CMD	: CHAIRMAN AND MANAGING DIRECTOR
CONT	: CONTRACTS
CSD	: CUTTER SUCTION DREDGER
CVC	: CHIEF VIGILLANCE COMMISION
D (F)	: DIRECTOR (FINANCE)
D (O&T)	: DIRECTOR (OPEATIONS & TECHNICAL)
DGM	: DEPUTY GENERAL MANAGER
DGPS	: DIFFERENTIAL GLOBAL POSITIONING SYSTEM
DM	: DREDGE MASTER
DMC	: DEPUTY MANAGER (CONTRACTS)
DMS	: DEPUTY MANAGER (SURVEY)
DO	: DEMI OFFICIAL
DTC	: DECK TINDLE CASSAP
EC	: ENTRANCE CHANNEL
ELO	: ELECTRICAL OFFICER
EMD	: EARNEST MONEY DEPOSIT
ETC	: ENGINE TINDLE CASSAP
F&A	: FINANCE & ACCOUNTS
FPL	: FLOATING PIPELINE
FW	: FRESH WATER
GM(OPS)	: GENERAL MANAGER (OPERATIONS)

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 3 02
	<u>TMS</u>		REV. : DATE :	00 12-04-10


SECTION 1.05	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

HO : HEAD OFFICE
 HOD : HEAD OF THE DEPARTMENT
 HR : HUMAN RESOURCES
 JO : JUNIOR OFFICER
 JWO : JUNIOR WATCHKEEPING OFFICER
 KL : KILO LITER
 LOI : LETTER OF INTENT
 LTR : LETTER
 M : METERS
 MGR : MANAGER
 MIV : MATERIAL ISSUE VOUCHER
 MKTG : MARKETING DEPARTMENT
 MOU : MEMORANDUM OF UNDERSTANDING
 MT : METRIC TON
 NIT : NOTICE INVITING TENDER
 OPS : OPERATIONS
 PED : PROJECT ENGINEERING DEPARTMENT
 PIC : PROJECT IN-CHARGE
 PO : PROJECT OFFICE
 PO (D) : PETTY OFFICER (DECK)
 QTY : QUANTITY
 R.A.BILL : RUNNING ACCOUNT BILL
 SD : SECURITY DEPOSIT
 SFPL : SELF FLOATING PIPELINE
 SHS : SR. HYDROGRAPHIC SURVEYOR
 SM : SOIL MECHANICS
 SPL : SHORE PIPELINE
 SSO : SECRETARIAL AND STORES OFFICER
 ST : SAND TRAP
 ST : SALES TAX
 SUR : SURVEY
 SWO : SENIOR WATCHKEEPING OFFICER
 TC : TURNING CIRCLE

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	2 OF 3 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 1.05	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

TECH : TECHNICAL
TSHD : TRAILER SUCTION HOPPER DREDGER
WKEO : WATCHKEEPING ENGINE OFFICER
2 O : SECOND OFFICER
3 O : THIRD OFFICER

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	3 OF 3 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10


SECTION 1.06	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

1.06 INTRODUCTION:

Vessels are machinery resources belonging to Operations Department and are utilized to carry out dredging assignments. Vessels include mainly dredgers and a few ancillary vessels like tugs, survey launches etc. Depending upon quantum of the assignment, specific dredgers and ancillary crafts are deployed at a particular project.

Master is the overall in-charge of a vessel and also in-charge of deck side operations of the vessel. Chief Engineer Officer (CEO) is the in-charge of Engine side operations and reports to Master. Master and CEO reports to GM (OPS) and GM (TECH) respectively in respect of their operations. Master of the dredger report to PIC, irrespective of his cadre, and perform dredging to the instructions given by PIC from time to time as per the contract and as per directions issued from GM (OPS).

The Project Office is headed by Project-in-charge (PIC) in the cadre of Dy. General Manager, Manager, Dy. Manager and Asst. Manager depending upon the size & requirements of the Project. All PICs are under the direct control of GM (OPS). They render supporting services as per the requirement of the dredgers deployed for execution of dredging projects. With the regular monitoring and guidance from operations department at Head office, they ensure effective dredging services to the customers and provide improvised and qualitative services to achieve the customer satisfaction while simultaneously meeting the organisations objectives and the physical and financial targets.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10


SECTION 2.01	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

2.01 VESSEL OBJECTIVES :

- 1) In order to achieve the operational targets as stipulated by HO from time to time in MOU for the financial year. To achieve the operational targets set for the vessel for following parameters are the objectives of the vessel:
 - i) Dredging days
 - ii) Quantity dredged
 - iii) Average fuel consumption per day.

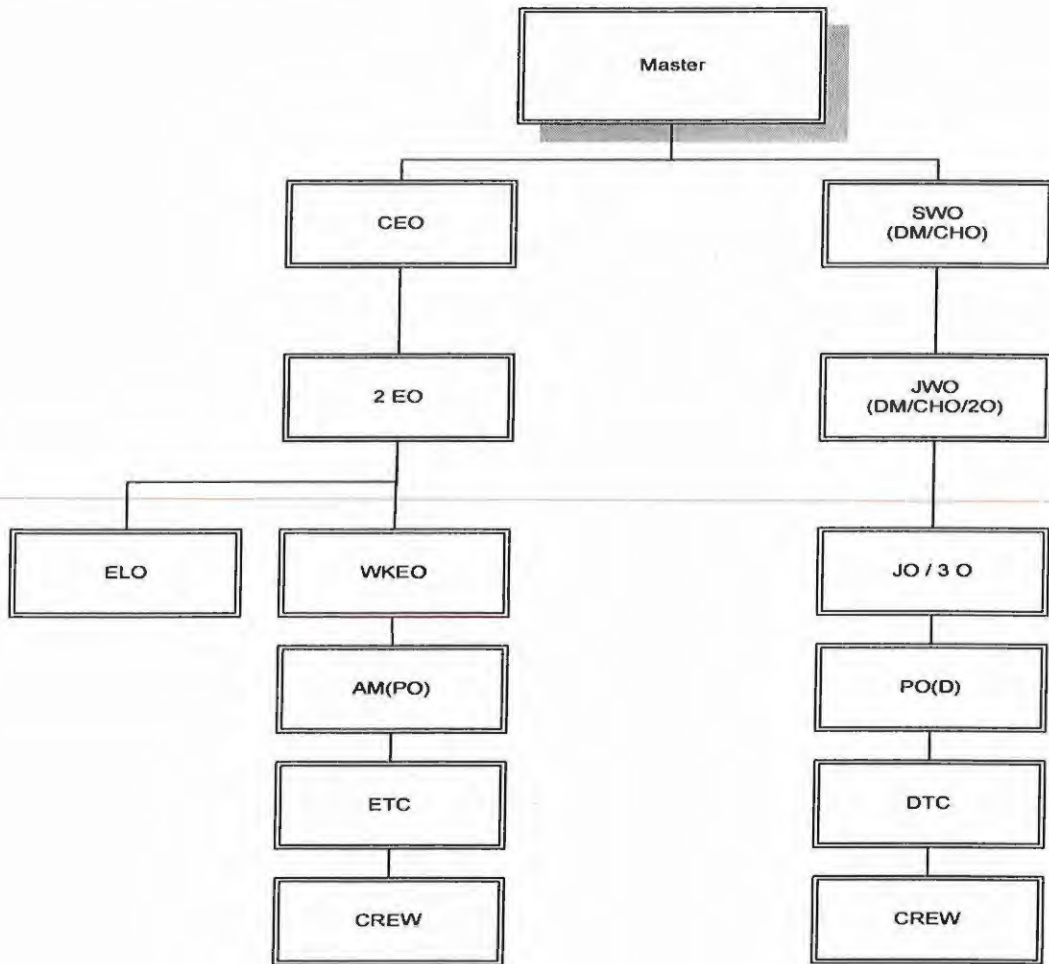
- 2) To complete the dredging assignment as per schedule and in line with the contract.


- 3) To ensure effective implementation of Safety, Security, Quality and Environmental management systems on board the Dredger.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PMS</u>		REV. : DATE :	00 12-04-10

SECTION 2.02	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

2.02 VESSEL ORGANOGRAM:



PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	PMS		REV. : DATE :	00 12-04-10


SECTION 2.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

2.03 RESPONSIBILITIES AND AUTHORITIES:

1) MASTER:

The responsibility and authority of Master is as follows:

1. He is the administrative Head and responsible for safe and effective operation, management and optimum productivity of the Dredger.
2. He shall ensure effective implementation of Safety, Security, Quality and Environmental management systems on board the Dredger and acts as the nodal officer.
3. He interacts with project office and concerned HODs for effective operation of the dredger.
4. Liaison with Customer representative in operational matters.
5. Ensuring each crew member is competent to perform a task / job by requiring a pre-job explanation including safe work practices before starting the work.
6. He shall entrust job-allocations and functional responsibilities among ship-board personnel as per SMS manual (section no. 2.4 of SOM).
7. He shall ensure that the non-conformities or deficiencies relating to the systems, processes, services, etc. observed during the audit/ inspection are suitably addressed to prevent recurrence of the same.
8. He shall initiate proactive measures on board vessels as part corrective action for implementation of the various systems.
9. He shall identify annual training needs of personnel onboard and intimate the same to HR department and the concerned head of the department and follow up for the effective conducting of the same.
10. He shall ensure that the planned and preventive maintenance is carried out as per the schedule.
11. He shall prepare a list of equipments that requires calibration and ensure timely calibrations.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 6 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 2.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

2) Senior Watchkeeping Officer (SWO):


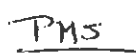
The responsibilities of SWO are as follows:

1. Maintenance of decks and accommodation.
2. Maintenance and upkeep of all dredging equipment.
3. Preparation of vessel for statutory surveys and other related audits.
4. Raising work orders for workshop assistance.
5. Upkeep of Deck Spares and stores and reporting consumption of same to Master for updating inventory records.
6. Training all Deck Officers, Petty officers and Crew in efficient and safe operation.
7. Dredging operations and following the related safety procedures.
8. Garbage and Oil Pollution prevention responsibilities.
9. He shall ensure deck officers and crew follow safe working practices as defined in company procedures.
10. Arranging watchkeeping duties of deck officers, petty officers and crew to ensure prevention of fatigue.

3) Junior Watchkeeping Officer (JWO):

The responsibilities of JWO are as follows:

1. He will assist the Senior Watchkeeping Officer to ensure the safe and efficient operation of the ship.
2. He is the Navigating Officer and is responsible to the Master for passage planning and maintenance of charts and nautical publications.
3. He is the Medical Officer and is responsible for medical administration and stores and shall maintain records of stocks and replenish stocks periodically as per relevant Merchant shipping Medical Scales.
4. He is responsible for the upkeep of the Radio and Electronic stores, spares and Manuals including the ALRS Manuals in the absence of the Radio Officer.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	2 OF 6 02
			REV. : DATE :	00 12-04-10

SECTION 2.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

5. He is responsible for maintenance and repair of Navigation and other Bridge equipment.

4) JO / 3 O / PO (D):


The responsibilities of Junior Officer / 3rd Officer / Petty Officer (Deck) are as follows:

1. He is responsible for safe and efficient operation of suction pipes to carry out dredging.
2. He assists SWO and JWO in day to day maintenance of the vessel.
3. He assists SWO and JWO in raising Defect Lists regarding repairs and raising indents for spares and stores.
4. He assists SWO and JWO in preparing the vessel for surveys and audits.
5. He is responsible for detailing the day to day maintenance jobs to DTC and crew as per the instructions of SWO.
6. He assists SWO and JWO in preparation of all dredging reports and other reports related to ISM, ISO and ISPS.
7. He is responsible for the duties allocated time to time by Master or SWO during operation, maintenance and dry dock.

5) Chief Engineer Officer (CEO):

The responsibility and authority of CEO is as follows:

1. He is responsible for safe management and operations of the machinery onboard the dredger.
2. Efficient operation and maintenance of all plant and equipment associated with safety and anti-pollution as defined by statutory legislation and Company procedures.
3. He interacts with project offices and concerned HODs for effective operation of the machinery.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	3 OF 6 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10


SECTION 2.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

4. He shall entrust job-allocations and functional responsibilities among ship-board personnel as per SMS manual (section no. 2.5 of SOM).
5. He shall ensure that the non-conformities or deficiencies relating to the systems, processes, services, etc. observed on the Engine side during the audit/ inspection are suitably addressed to prevent recurrence of the same.
6. He shall identify annual training needs of personnel onboard, in consultation with the Master.
7. He shall ensure that the planned and preventive maintenance of Engine room equipment is carried out as per the schedule.
8. Maintenance of records of all routine and un-scheduled maintenance in accordance with Manufacturers requirements and Company procedures.
9. Ensuring statutory and class surveys are carried out on all plant and equipment covered by such survey requirements in due time.
10. Maintaining stand-by plant and systems in a complete state of readiness to meet any emergency requirements.
11. Testing stand-by systems on a regular basis.
12. Ensuring Oil Record Book and Engine Log Book are accurate and up to date.
13. Identifying training requirements of all personnel of engineering department.
14. He shall prepare a list of Engine side equipment that requires calibration and ensure timely calibrations.
15. He shall ensure inventory control of Engine side items, in consultation with Master.

6) Second Engineer Officer (2EO):

The responsibilities of 2EO are as follows:

1. He is responsible for day to day working of the engine room department.
2. Responsible for carrying out all routine, long term and preventive maintenance in Engine room, in accordance with CEO instructions and ISM Code.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	4 OF 6 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10


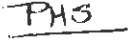
SECTION 2.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

3. He should allocate duties to other engineers and engine room staff in day to day basis for daily maintenance, repairs and overhaul. All the above should be entered in the work book and should be presented to CEO on daily basis or weekly basis as required.
4. To discuss and bring to the notice of CEO all things pertaining to operation and maintenance aspects on daily basis.
5. Responsible for preservation of cleanliness, upkeep and maintenance of the structure of the ship in the engine room besides efficient operation of the main engine.
6. Responsible for maintenance of stores, spares, defect lists, indents and record of instruments and tools.
7. Maintenance of log book and filling of the log entries properly for consumption of fuel oil, lub oil and stores.
8. Responsible for machinery maintenance and up keeping of planned maintenance schedules and records. Also to guide other engineers in the same aspect.
9. The records of day to day routines and planned maintenance schedule of the above machinery should be maintained.

7) Watchkeeping Engineer Officer (WKEO):

The responsibilities of WKEO are as follows:

1. He is responsible for safe and efficient operation of machinery during his watch, ship keeping, maintenance and dry-dock or lay-up.
2. For purposes of maintenance, overhauls, supervision of repairs, he will carry out all works and duties allotted to him by 2nd engineer.
3. He is responsible for maintenance, overhaul, supervise the repairs of machinery and maintain records of the same.
4. He will maintain record of spares in regard to stock, consumption and requirement and forward the same to CEO / 2nd Engineer.


PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	5 OF 6 02
			REV. : DATE :	00 12-04-10

SECTION 2.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

8) Electrical Officer (ELO):

The responsibilities of ELO are as follows:

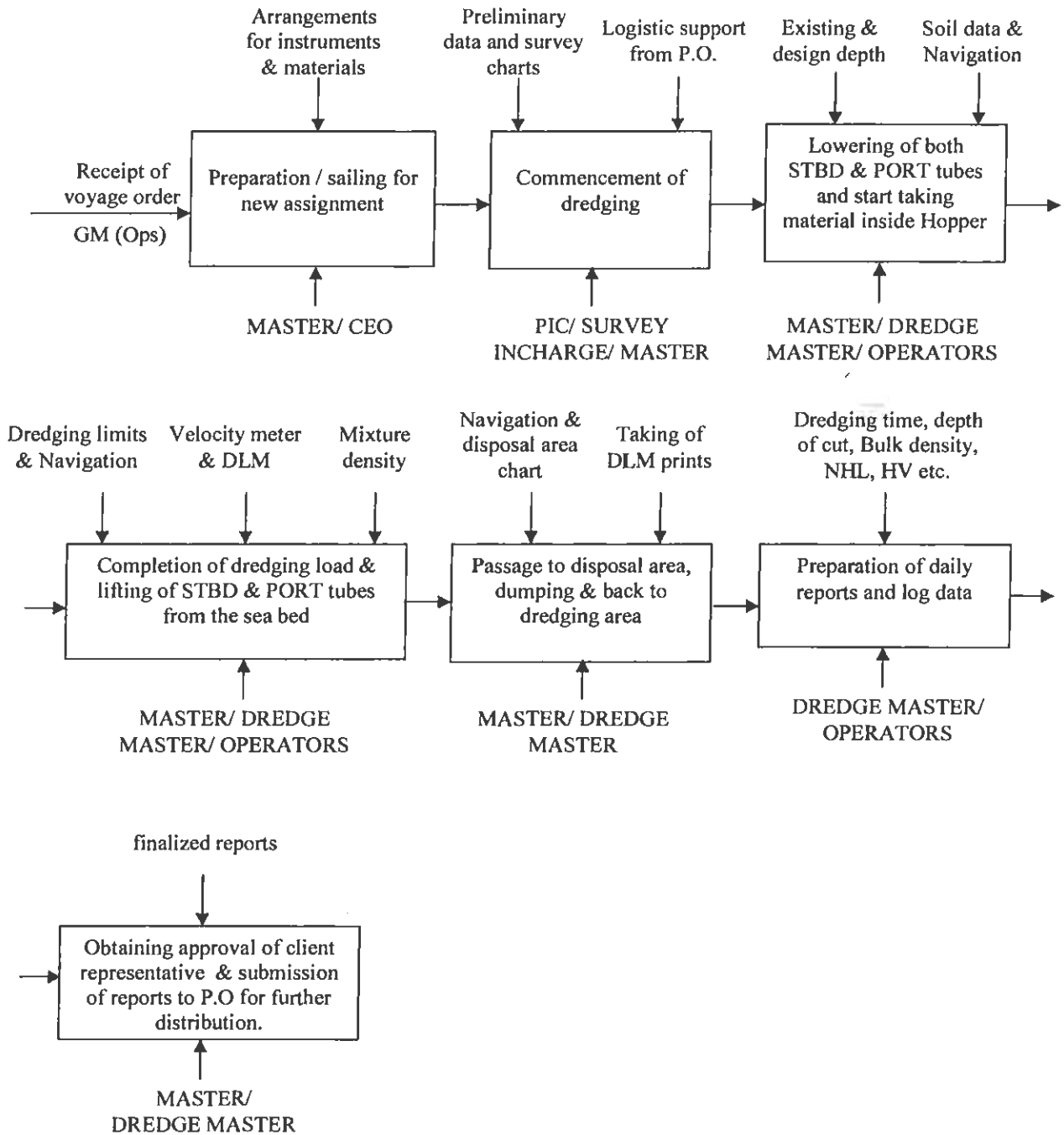
1. He is responsible to CEO for proper upkeep and efficient operations of all electrical equipment and machinery.
2. He must keep day to day record of all work carried out in connection with the electrical equipment, machinery and lighting onboard.
3. He is responsible for all electrical stores, spares and working instruments and tools. He must maintain an up to date list of inventory of items under his charge showing opening balance, consumption receipts and balance.
4. He is responsible for preparing and submitting to 2nd engineer for the requisition of stores and spares as required.
5. He will plan all preventive maintenance items of work and discuss with 2nd engineer for execution. Also distribute work to the other electrical officers.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	6 OF 6 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 3.01	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

3.00 PROCESS CHARTS

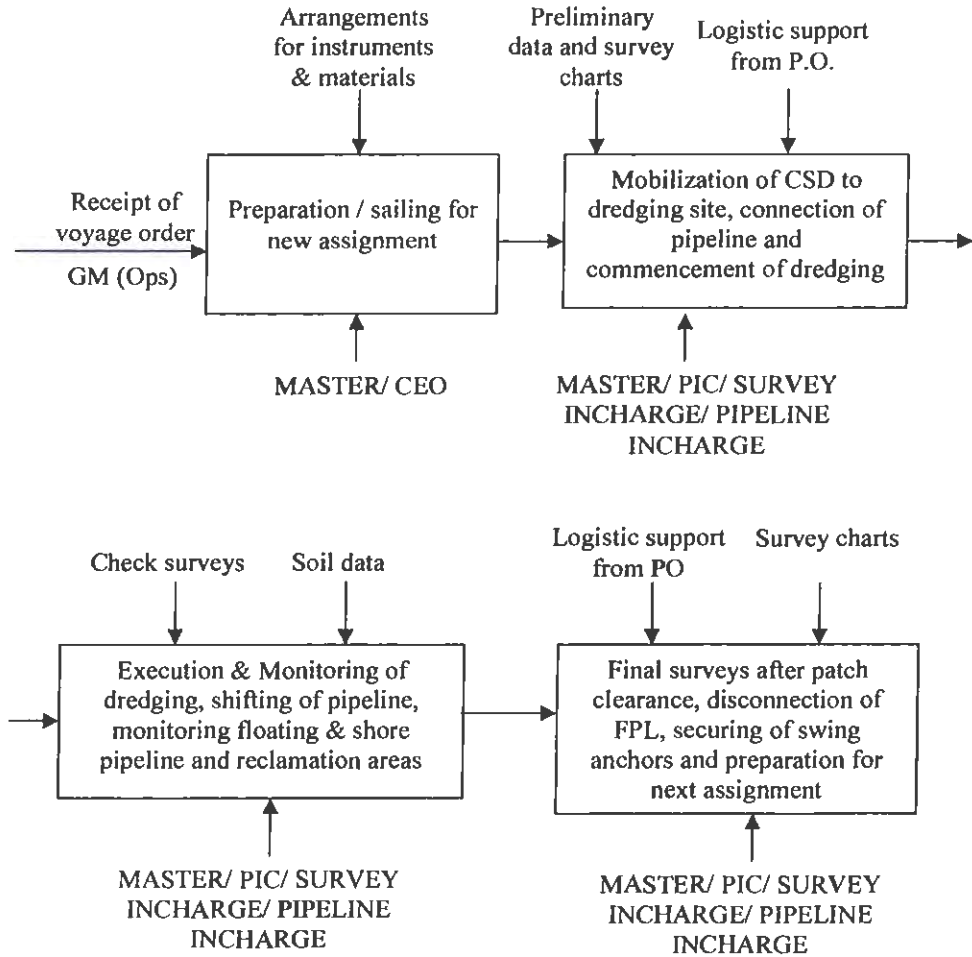
3.01 TSHD DREDGING CYCLE:



PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

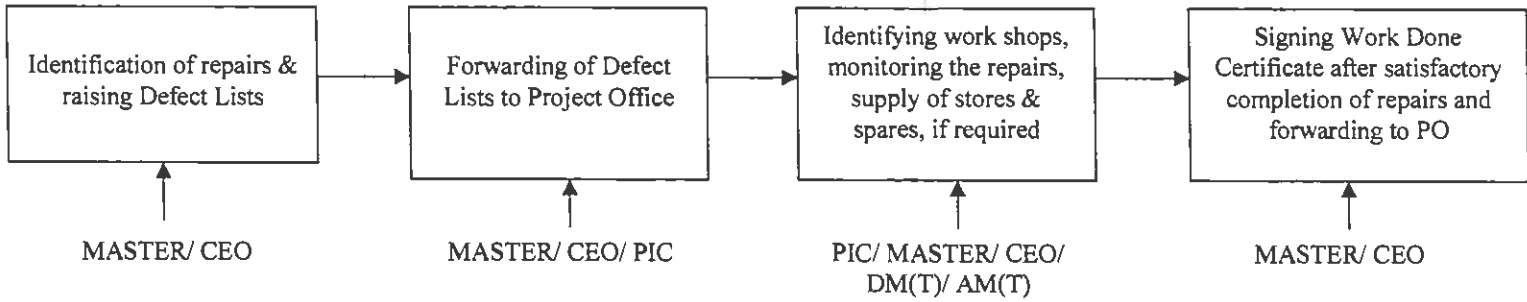
SECTION 3.02	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

3.02 CSD DREDGING CYCLE:



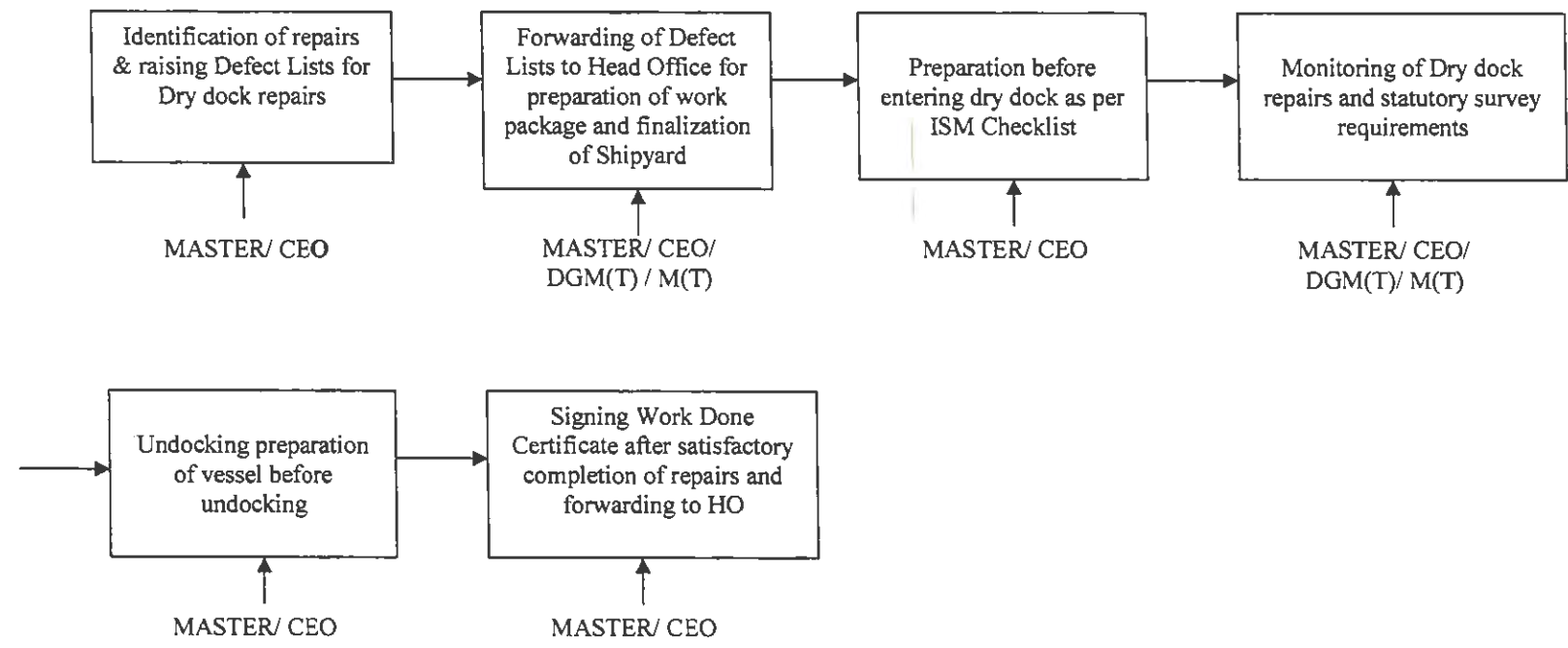
PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
<i>[Signature]</i>	<i>PHS</i>		REV. : DATE :	00 12-04-10

3.03 RUNNING REPAIRS ON DREDGERS :



PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PMS</u>		REV. : DATE :	00 12-04-10

3.04 DRY-DOCKING REPAIRS:



PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE :	1 OF 1
	<u>PHS</u>		ISSUE :	02
			REV. :	00
			DATE :	12-04-10

SECTION 4.01	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

4.00 VESSEL ACTIVITIES

4.01 ACTIVITIES ON BOARD DREDGERS:

The vessel activities are broadly classified into following three sections:

1. vessel maintenance including the statutory and class requirement etc
2. vessel production
3. Administration including payments.

1. Vessel safety & maintenance:


- i. Master is responsible for Hull and deck side machinery and deck side dredging equipment.
- ii. CEO is responsible for maintenance of all engine room and other machinery.
- iii. Maintenance includes preventive/predicted maintenance and breakdown.
- iv. Indenting stores and spares by Master/CEO required, requesting for workshop assistance for running repairs, Requesting for fresh water, fuel, lubes, etc

2. Production:

- i) Dredging is carried out as per the instructions of PIC.
- ii) DDRs and DURs are prepared daily, showing production data and are sent to PIC and GM(Ops) / GM (T) / GM(IT).

3. Administration including payments:

- i) Administration is looked after by Master with the help of SSO.
- ii) Payments are made by F&A section of PO.


PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 4.02	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

**4.02 SAILING/ VOYAGE PREPARATIONS & REQUIREMENT OF MASTER
BEFORE ARRIVAL AT PORT:**

1. On receipt of sailing orders from PIC, Master makes following preparation for voyage to next project:
 - i) Onboard requirement of RMR, critical spare parts, cash etc. before sailing the vessel.
 - ii) Fulfilling of statutory requirements such as safe manning, valid certificates, ISM documentation etc. is ensured.
 - iii) As per ISM, preparation of passage plan/ towing plan, if required, and inform to H.O. & P.O.
 - iv) During voyage, Master has to send noon report on status and location of V/L to GM(OPS) and concerned at HO and PO.

2. Master projects the following requirements on arrival to the PIC:
 - a. Port clearance
 - b. Pilot, tugs
 - c. Dredging instructions, features of contract, etc.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 4.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

4.03 REPORTING OF DREDGER PERFORMANCE :

(A) Daily dredging report (DDR) / Load-wise capturing data :-

1. Real time data from DLM , HVLM & DTPS is captured for load, NHL, Volume , Densities.&Location.
2. DDR is prepared at the end of the day i.e. at 2400hrs.and signed by Master and client representative on board.
3. Above report is forwarded to P.O. & H.O. on subsequent day through E-mail and dock as per the format.
4. P.O. forwards a copy to client.

(B) Daily utilisation report (DUR) :-


1. Fuel ,Lubes & F/Water consumption data from Engine & Deck systems.
2. From the input data , DUR is prepared at the end of the day manually and signed by Master & C.E.
3. Above is forwarded to P.O. & H.O. on subsequent day through E-mail and dock, as per the format.

(C) Weekly dredging report (WDR):-

1. From input data ,WDR is prepared at the end of the Week manually and signed by Master.
2. Above is forwarded to P.O. & H.O. on subsequent day through dock, as per the format.

(D) Monthly performance report (MPR):-

1. From the input data, MPR is prepared at the end of the month manually showing the the target vs. actual figures and signed by Master.
2. Above is forwarded to P.O. & H.O. on subsequent day through dock as per the format.

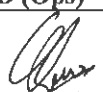
PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 4.04	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

4.04 PREPARATIONS FOR DREDGING:

Following points are ensured by Master before commencement of dredging at a project:

1. Availability of area charts and their scrutiny – Latest Hydrographic chart of dredging and dumping grounds.
2. Accuracy and correct functioning of position fixing system.
3. Data on current, tide and wind.
4. Soil characteristics.
5. Traffic density of Shipping in dredging area
6. Local Port rules.
7. Local Craft movement (Fishing, Cargo etc.)
8. Accuracy and calibration of ship's instrumentation.
9. Status of dredging equipment.
10. Swing width and speed, cutter speed and advancement incase of cutter suction dredgers.
11. Certificate from client / PIC on under water obstructions.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PMS</u>		REV. : DATE :	00 12-04-10

SECTION 4.05	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---

4.05 CLASSIFICATION SURVEYS:

1. LOAD LINE SURVEY:

Classification Society (IRS) issues load line certificate of the vessels for a period of 5 years with a provision of annual survey and intermediate survey between 2nd and 3rd year. However, for compliance of load line requirement, + (or) - 3 months window period is allowed for carrying out annual Load Line Surveys, there is no window period after expiry of full term Load Line Certificates. Therefore, all load line items are to be maintained and get surveyed in time prior to their expiry date.

2. SPECIAL SURVEY HULL (SSH), CONTINUOUS SURVEY OF HULL (CSH) & CONTINUOUS SURVEY OF MACHINERY (CSM):


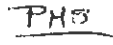
All the machinery and hull surveyable items are to be surveyed by Classification Societies once in 5 years. Prior to dry-docking, it is to be ensured that list of all the items due / over due for survey is made, spares arranged and all items are surveyed and repaired as necessary as per Class rules during the dry-dock period. The U.T gauging of ship's hull, bulkheads and other structures is to be taken in advance prior to dry-docking as far as possible and immediately after dry-docking, wherever it is not possible to record plate thickness afloat.

3. DOCKING SURVEY:

Class (IRS) will examine the vessel twice in a cycle of 5 years. However, the duration between two consecutive surveys shall not to exceed 3 years. Therefore, whenever the vessel is Dry-docked, Docking Survey will be carried out and get credit after compliance with Class requirements.

4. SAFETY CONSTRUCTION CERTIFICATE:

This Certificate is issued by MMD on the recommendation of Classification Society for a period of 5 years with a provision of Annual Endorsement every year and intermediate Surveys between 2nd and 3rd year. CSH / CSM will be carried out and get credited by Classification Society prior to its expiry. For the purpose of full term SAFCON Certificate, the Classification Surveyor, on satisfactory completion of surveys, issues a shot term

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 2 02
			REV. : DATE :	00 12-04-10

SECTION 4.05	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

certificate and forward their report of survey to MMD recommending for issuance of Full Term Certificate.

5. SURVEY OF OTHER EQUIPMENT:


The Propeller Shafts, Rudders and bow Propellers are shall be surveyed once in 5 years. Therefore, whenever vessel is planned for dry-docking and if the survey of this equipment is falling due in the near future, same shall be included in the dry dock repair specifications and get surveyed to avoid unscheduled dry dock at a later date.

6. CARGO SAFETY RADIO CERTIFICATE:

This Certificate is issued by MMD in accordance with the requirements of International Convention for the Safety of Life at Sea (SOLAS) 1974 relating to the global implementation of the harmonized system of the survey and certification after the requirements of the Convention with regard to Radio Installations like MF / HF / VHF Ship Earth Station, their functioning used in life saving etc. are compelled. This certificate is issued by MMD on the recommendation of classification society for a period of 5 years with a provision of annual and intermediate surveys, subject to all other certificates viz., Load Line Certificate, SAFCON Certificate, IOPP Certificated and SEQ Certificate are valid.

7. IOPP CERTIFICATE:


The Oily Bilge Water Separator fitted on the vessels is maintained in proper working condition at all times and any discharge of bilges should done through the Oily Bilge Water Separators only. The survey for the purpose of issuance of IOPP conducted by classification society (IRS/LRS) and a short term certificate is issued on satisfactory completion of survey. The classification society will submit its report to MMD recommending for issuance of Full Term Certificate. The validity of this certificate is 5 years subject to Annual and Intermediate surveys done by classification society. For this certificate, it is mandatory that the vessel should have an approved SOPEP (Shipboard Oil Pollution Emergency Plan) and up dated oil record book onboard Dredgers.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	2 OF 2 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 4.06	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

4.06 MEASUREMENT AND ANALYSIS:

Objectives mentioned in Section 2.01 are monitored, measured and analyzed quarterly

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>THS</u>		REV. : DATE :	00 12-04-10

SECTION 5.01	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-------------------------	--	---


5.0 ANNEXURES

5.01 EQUIPMENT MAINTAINED BY VESSEL:

The equipment maintained by a Vessel mainly contains the following:

SL.NO.	EQUIPMENT
1.	Main Engines
2.	Auxiliary Machinery
3.	Dredging Equipment
4.	Fuel System
5.	Lub.Oil System
6.	Cooling System
7.	Fresh Water Circulating Pumps
8.	Coolers
9.	Bilge & Ballast System
10.	Navigation Lights and Indicators
11.	Fire Detection System
12.	Bow Thrusters
13.	Dry Tanks
14.	Anchors
15.	Steering Gears
16.	Communication Equipment
17.	Navigation Equipment
18.	Hydraulic System
19.	Alarms, Controls & Safeguards
20.	Gangways, Walkways & Lifelines

Detailed lists are maintained by the vessels.

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 1 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10


SECTION 5.02	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

5.02 DOCUMENTS MAINTAINED BY VESSEL:

1) RECORDS:

<u>S. NO.</u>	<u>FILE NO.</u>	<u>NAME OF FILE</u>	<u>RETENTION PERIOD</u> (yrs)
1.	D__/_QMS/01	Dredging Agreement.	3
2.	D__/_QMS/02	Correspondence on dredging assignment.	3
3.	D__/_QMS/04	Daily Utilisation Reports (DURs)	1
4.	D__/_QMS/05	Daily Dredging Reports (DDRs)	3
5.	D__/_QMS/06	Weekly Dredging Reports (WDRs)	1
6.	D__/_QMS/07	Monthly Performance Reports.	1
7.	D__/_QMS/08	Survey Charts	1
8.	D__/_QMS/09	Soil analysis reports	1
9.	D__/_QMS/10	MOU & Departmental targets	3
10.	D__/_QMS/11	Dredger repairs - Deck side	3
11.	D__/_QMS/11A	Dredger repairs – Engine side	3
12.	D__/_QMS/12	DL cum WOs - Deck side	1
13.	D__/_QMS/12A	DL cum WOs - Engine side	1
14.	D__/_QMS/13	RMRs - Deck side	1
15.	D__/_QMS/13A	RMRs - Engine side	1
16.	D__/_QMS/14	Purchase orders	1
17.	D__/_QMS/15	Delivery Challans	1
18.	D__/_QMS/16	DLM Prints	1
19.	D__/_QMS/17	Training records	1
20.	D__/_QMS/18	QMS - Audits.	3
21.	D__/_QMS/19	QMS – Management Reviews.	3
22.	D__/_QMS/20	QMS-Measurement & Analysis	3
23.	D__/_QMS/21	QMS-Corrective & Preventive Actions	3
24.	D__/_QMS/26	QMS-Communications	1

Note: __ = Dredger number
Eg.: Dr- XI = D11

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 2 02
	<u>PMS</u>		REV. : DATE :	00 12-04-10


SECTION 5.02	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

2) REGISTERS:

Sl. No.	Name Of Register	Identification no.	Retention Period (Yrs)
1.	DL cum WO – Deck side	D /QMS/R-01	3
2.	DL cum WO – Engine side	D /QMS/ R-02	3
3.	RMRs – Deck side	D /QMS/ R-03	3
4.	RMRs – Engine side	D /QMS/ R-04	3

3) OTHER DOCUMENTS:

SL. NO.	IDENTFN. NUMBER	NAME OF THE DOCUMENT	RETENTION PERIOD (YRS)
I.	D__ /QMS/I	Quality Manual – Controlled copy no.	Permanent
II.	D__ /QMS/II	Operations Department- Vessel manual	
III.	D__ /QMS/III	ISO 9001:2008 Standard	

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	2 OF 2 02
	PHS		REV. : DATE :	00 12-04-10

SECTION 5.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

5.03 FORMATS MAINTAINED BY VESSEL:


1) DAILY UTILISATION REPORT (DUR) - TSHD

OPS/DR/01

DR-		DATE OF DUR:	
DREDGER	AAA	DCI DREDGE -	
PLACE	BBB		
CLIENT/ASSIGNMENT	CCC		
DREDGING	DDD		
MAINTENANCE	EEE		
BREAK DOWN	FFF		
OTHER REASON	GGG		
ZONE/AREA/TRACK	HHH		
NO OF LOAD	III		
NHL	JJJ		
VOLUME OF MIXTURE	KKK		
MATERIAL DREDGED	LLL		
BULK DENSITY	MMM		
AVERAGE MIX DENSITY	NNN		
ESTIMATED QTY. IN HOPPER (CUBIC METRES)	OOO		
AVERAGE DREDGING TIME	PPP		
SAILING SPEED LIGHT	QQQ		
FUEL(DREDGING)	RRR		
FUEL(NON DREDGING)	SSS		
DETAILS OF BREAKDOWN AND OTHER REASONS WITH BREAK UP TIMINGS	TTT		
MASTER			
CEO	UUU		
DWKO	VVV		
DAILY REPORT FOR DATE			
(A)	Equipment /Machinery/instrument not working :		
(B)	Immediate requirement:		
(C)	Change of Crew :-		

CHIEF ENGINEER OFFICER

MASTER

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	1 OF 8 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 5.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--


2) DAILY UTILISATION REPORT (DUR) - CSD

OPS/DR/02

DR-		DATE OF DUR:
DREDGER	AAA	DCI DREDGE -
PLACE	BBB	
CLIENT/ASSIGNMENT	CCC	
DREDGING HOURS	DDD	
MAINTENANCE HOURS	EEE	
BREAK DOWN HOURS	FFF	
OTHER REASONS	GGG	
TOTAL ADVANCE MADE	HHH	
QUANTITY DREDGED	III	
DREDGING LOCATION	JJJ	
DETAILS OF OTHER REASONS	KKK	
TYPE OF MATERIAL DREDGED	LLL	
FUEL COSUMPTION WHILE DREDGING	MMM	
FUEL COSUMPTION WHILE NON-DREDGING	NNN	
LENGTH OF SHORE PIPELINE	OOO	
LENGTH OF FLOATING PIPELINE	PPP	
DAILY REPORT FOR DATE		
(A)	Equipment /Machinery/instrument not working :	
(B)	Immediate requirement:	
(C)	Change of Crew :-	

CHIEF ENGINEER OFFICER

MASTER

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	2 OF 8 02
	PHS		REV. : DATE :	00 12-04-10

SECTION 5.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

3) MONTHLY PERFORMANCE REPORT:

**MONTHLY PERFORMANCE REPORT
OF DCI DREDGE- FOR :**

OPS/DR/03

1. ACTUAL PERFORMANCE ACHIEVED:

DETAILS IN DAYS	CURRENT MONTH	PRESENT QUARTER	FOR YEAR	MOU TARGETS FOR THE YEAR	BALANCE TARGET DAYS FOR YEAR
DREDGING					
MAINTENANCE					
BREAK DOWN					
OTHER REASONS					
TOTAL DAYS					
QTY. DREDGED(CuM)					
NHL (Tons)					
VOLUME (CuM)					
TOTAL FUEL CONS (HSD)					

2. QUANTITY DREDGED:

AREA: LOADS: QTY. OF SOLIDS AT BULK DENSITY:

3. FUEL CONSUMPTION:

A) DREDGING (HSD):

B) NON-DREDGING:


4. DETAILS OF "BREAK DOWNS":

5. DETAILS OF "OTHER REASONS":

6. DETAILS OF "SINGLE TUBE LOADS":

7. ACHIEVEMENTS:

MASTER

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	3 OF 8 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

4) DAILY DREDGING REPORT:

DREDGING CORPORATION OF INDIA LIMITED

DAILY DREDGING REPORT (TSHD)

OPS/DR/04

DREDGER : DR-____

PORT : _____

DATE: _____

Location	Day of Tide	Time	Height (in Mtrs.)

Day: _____	Date: _____	Mean Lt. Draft: __ Mtrs.
Day of Tide: _____		Mean Lt. Displacement: __ Tons
On hire Hours: _____		Off hire Hours: _____

Week No.:


D.R.No. :

Tracing No. :

S.No.	Location		Passage								Hopper		Delay					
	Load No.	Area Track	Latitude From	Latitude To	Dredging Start	Dredging End	Load Start	Load End	Dumping Start	Dumping End	Empty Start	Empty End		Others Start	Others End	NHL (T)	Volume (Cu.M)	Dist. NM

CLIENT'S REPRESENTATIVE

MASTER

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE : ISSUE :	4 OF 8 02
	<u>PHS</u>		REV. : DATE :	00 12-04-10

SECTION 5.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

DREDGING CORPORATION OF INDIA LIMITED
DAILY DREDGING REPORT (CSD)

OPS/DR/04

PORT:

DATE:

DDR NO:	QTY DREDGED:	QTY DREDGED TILL DATE:
---------	--------------	------------------------

DREDGER:

LOCATION:

	1 st SHIFT 0000-0800			2 nd SHIFT 0800-1600			3 rd SHIFT 1600-2400			TOTAL
	From	To	Total	From	To	Total	From	To	Total	
PUMPHOURS										
ANCHOR SHIFTING										
PIPELINEWORK										
BREAK DOWN										
OTHER REASONS										
MAINTENANCE HOURS										
AVGE. DEPTH										
ADVANCE MADE (Mtrs)										
SWEEP OF CUTTER (Mtrs)										
QTY DREDGED CUM										
DREDGE PUMP RPM (PORT)										
DREDGE PUMP RPM (STBD)										
FLOATING PIPELINE (Mtrs)										
SHORE PIPELINE (Mtrs)										

FUEL CONSUMPTION (KL):

CLIENT REPRESENTATIVE

MASTER

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE :	5 OF 8
	<u>PHS</u>		ISSUE :	02
			REV. :	00
			DATE :	12-04-10

5) WEEKLY DREDGING REPORT:

**DREDGING CORPORATION OF INDIA LIMITED
WEEKLY DREDGING REPORT**

OPS/DR/05

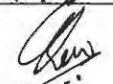
ARIVAL					CONTRACT	
COMMENCED DREDGING		DREDGER: DCI DR-			LOCATION	
TARGET COMPLETION		FROM	TO		NATURE OF SOIL	

Day	Date	Working	Dredg.	Maint.	B/D	Non Dredg.	Bulk Density/ Specific Gravity	Drag head Used	Hopper Loads	NHL (T)	VOL	Est.qty dredged (M-Va) / b-a	% of conce	Dist	ME/ PUMP
		Hrs.	Hrs.	Hrs.	Hrs.	Hrs.							ntrati on	NM	RPM

	NHL	VOL
Qty. Dredged till end of last week		
Qty. Dredged during this week		
Qty. Dredged till end of this week		


CEO

MASTER

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE :	6 OF 8
	<u>PHS</u>		ISSUE :	02
			REV. :	00
			DATE :	12-04-10

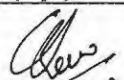
ACCOUNT FOR TIME SPENT:

Day	MON	TUE	WED	THU	FRI	SAT	SUN
Date							
TIME TAKEN –DREDGING WORK							
Dredging Operation							
Passage							
Dumping							
Shifting position							
TOTAL							
TIME TAKEN – MAINTENANCE							
Maintenance							
Dry-dock / Annual repairs							
Preparation time – Dry-dock / SVG							
TOTAL							
MACHINERY / EQUIPMENT BREAKDOWN							
Pump room							
Engine room							
Deck Equipment							
Bridge							
Dredge tubes / winch							
Hydraulic Repairs							
Others							
TOTAL							

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE :	7 OF 8
	<u>PMS</u>		ISSUE :	02
			REV. :	00
			DATE :	12-04-10

SECTION 5.03	DREDGING CORPORATION OF INDIA LIMITED	ISO9001:2008 OPERATIONS DEPARTMENT VESSEL MANUAL
-----------------	--	--

OTHER WORK & DELAY:								
Bad weather / strong current								
Voyage- change of assignment								
Waiting time- Bunkers/fresh water/Tug/Barge								
Waiting time – Spare / Machinery								
Preparation/ Voyage Maintenance								
Voyage for Dry-dock / Refit								
Waiting for assignment								
Non provision transit light								
Survey at dredging site								
Suspension – LOF								
Shipping Movement								
Obstruction								
Inadequate / Unlit NAV AIDS								
Instructions of clients								
Waiting for Tug Assistance								
Other Reasons								
TOTAL								
GRAND TOTAL								

PREPARED BY HOD (Ops)	REVIEWED & APPROVED BY MR	ISSUED BY HOD (Ops)	PAGE :	8 OF 8
	<u>PHS</u>		ISSUE :	02
			REV. :	00
			DATE :	12-04-10