

**HINDUSTAN PETROLEUM CORPORATION LIMITED  
VISAKHA -VIJAYAWADA-SECUNDERABAD PIPELINE**

**MBS OPERATIONS MANUAL**



**INTEGRATED MANAGEMENT SYSTEMS  
(ISO 9001:2015, ISO 14001:2015, ISO 45001:2018)**

IMF/DCL/02  
Rev: 00



HINDUSTAN PETROLEUM CORPORATION LIMITED  
VISAKHA-VIJAYAWADA-SECUNDERABAD PIPE LINE

**LIST OF DOCUMENTS**

(IMS Procedures & IMS Instructions)  
DEPARTMENT/SECTION: OPERATIONS - M B PATNAM

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Signature of Department Head

REVIEWED BY	APPROVED BY	ISSUED BY
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR



HINDUSTAN PETROLEUM CORPORATION LIMITED  
VISAKHA- VIJAYAWADA- SECUNDERABAD PIPELINE  
MALLU BHUPALA PATNAM  
ANDHRA PRADESH

ISSUE NO: 1  
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SHEET: 1 OF 1

INTEGRATED MANAGEMENT PROCEDURE

DOCUMENT NO.: IMP/OMP

TITLE

AMENDMENT RECORD SHEET

IMP/IMI/IMF No	Amendment/ Revision No	Effective Date	Brief Description of Changes

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	HINDUSTAN PETROLEUM CORPORATION LIMITED VISAKHA- VIJAYAWADA- SECUNDERABAD PIPELINE MALLU BHUPALA PATNAM ANDHRA PRADESH	ISSUE NO: 1 REVISION NO.:00 EFFECTIVE DATE: 24/10/2020 SHEET: 1 OF 8
	INTEGRATED MANAGEMENT PROCEDURE	DOCUMENT NO: IMP/OMP/01
TITLE	MALLU BHUPALA PATNAMCONTROL ROOM ACTIVITIES	

## 1.0 PURPOSE

To lay down the activities in operation of MALLU BHUPALA PATNAMcontrol room to ensure safe operations and to obtain the results of planned activities.

## 2.0 SCOPE

This is applicable to operations of MALLU BHUPALA PATNAMfacilities on a continuous basis in coordination with the following departments.

VVSPL Maintenance/MALLU BHUPALA PATNAMMaintenance/Rajahmundry Booster Station/ Intermediate Pumping Station-JK Gudem/ Vijayawada Booster Station/Suryapet Booster Station/ Intermediate Pumping Station-Bogaram/ Secunderabad Receiving Station

## 3.0 REFERENCES

IMS/MR/7

## 4.0 RESPONSIBILITY

### 4.1 MANAGER OPERATIONS

- 4.1.1 To Coordinate with DGM- Operations / Visakha Control Room regarding the pumping program.
- 4.1.2 To review the Control Room operations on a regular basis and to initiate & implement the corrective action as and when required.
- 4.1.3 Overall responsibility of the station.

### 4.2 SHIFT-IN-CHARGE

- 4.2.1 Implementation of the finalized pumping program, involving coordination with, Visakha Dispatch Station, Rajahmundry Booster station, Jeela Karra Gudem Booster station, Vijayawada Booster station, Suryapet Booster Station, Bogaram Booster station, Secunderabad Receiving Station.
- 4.2.2 To ensure safe operation of MALLU BHUPALA PATNAMcontrol room facilities by closely monitoring / maintaining all 'Operating Parameters (Annexure I)'

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**TITLE**

MALLU BHUPALA PATNAM CONTROL ROOM ACTIVITIES

- 4.2.3 To coordinate with maintenance department for availability of the facilities.
- 4.2.4 To monitor pipeline integrity by monitoring and analyzing the PIDS, LDS alarms in coordination with maintenance department.
- 4.2.5 To issue cold / hot / working at height permit for work inside premises and outside in the ROU area along the pipeline.
- 4.2.6 To monitor the report of security guards and bring it to the notice of relevant officer for attending any issue.
- 4.2.7 Carryout weekly inspection of fire siren equipment & PAGA system in co-ordination with F&S Officer.
- 4.2.8 Surprise checks to be carried out to ensure alertness of Security Guards, activities of valve operators & electricians and identification/correction of any abnormality in station. Findings to be recorded in the shift log book of C/R.
- 4.2.9 To record, at the end of the shift, all the relevant events occurred during the shift requiring the attention of the next shift in charge by preparing Handing over Note (HON) in IMF/OPN/01 and discuss briefly about the same.
- 4.2.10 To acknowledge the HON prepared by the previous shift in charge and discuss briefly about the same.
- 4.2.11 To carry out the roles and responsibilities as per the ERDMP.

**4.3 SHIFT ENGINEERS**

- 4.3.1 To assist the Shift in-charge in carrying out the activities as listed in 4.2.

**5.0 PROCEDURE**

- 5.1 To ensure safe operations, the activities as detailed in the following integrated management instructions are carried out :

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DOCUMENT NO: IMP/OMP/01

TITLE

MALLU BHUPALA PATNAM CONTROL ROOM ACTIVITIES

TITLE OF IMS INSTRUCTION	IMS INSTRUCTION No.
STANDARD CHECKS FOR SMOOTH OPERATIONS	IMI/OMP/01
LINING UP OF MALLU BHUPALA PATNAM STATION	IMI/OMP/02
OPERATION OF BOOSTER PUMPS AT MBS	IMI/OMP/03
SWITCH OVER OF PUMPS AT MALLU BHUPALA PATNAM STATION	IMI/OMP/04
SHUT DOWN OF MALLU BHUPALA PATNAM STATION	IMP/OMP/05
OPERATION OF MALLU BHUPALA PATNAM STATION UNDER EMERGENCY CONDITION	IMP/OMP/06
SUMP TANK OPERATION	IMI/OMP/07
ISSUE OF HOT/ COLD/ HEIGHT/ ELECTRICAL ISOLATION WORK PERMITS	IMI/OMP/08
PIG RECEIVING & PIG LAUNCHING	IMI/OMP/09
INTERFACE TRACKING	IMI/OMP/10

## 5.2 The co-ordination with MALLU BHUPALA PATNAM Maintenance group involves the following:

5.2.1 The shift personnel (except during any emergency as deemed fit by shift-in-charge) take at least one General Inspection round during the shift.

### 5.2.2 General Inspection Guidelines

The Shift Officers carries out at least one General Inspection round during the shift and checks at least two areas. The inspection covers but not confined to below guidelines:

#### Checks for Standard Conditions

1. Common for All areas

- Sufficient Illumination
- Housekeeping
- Condition in structures
- Condition of Buildings

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TITLE

MALLU BHUPALA PATNAM CONTROL ROOM ACTIVITIES

2. Mainline Pump House& Piping

- Abnormal Noises
- Any Leaks through Pump's Mechanical Seal, body, Valves, piping, PTs, TTs etc.
- Visually inspect EOT crane
- Condition of Emergency Shower
- Condition of Control Valve (PCV)
- Condition of Pipe Supports
- Condition & Status of critical Valves
- Level of Pumps' lube oil, seal plan
- Differential pressure across the Pump Suction and inform M&R (Mech) to clean the filter element when pressure drop exceeds 0.2 Kg / cm<sup>2</sup>.

3. Sub Station

- Any alarms in panels & status of relays.
- Condition of Exhaust Fans
- Any spillages in Battery Bank
- Any Vapors in Battery Bank
- Condition of eyewash unit of battery bank
- Any alarms in VFD panel
- Condition of HVAC for VFD
- Condition of Split ACs in VFD room
- Cleanliness in substation & cellar
- Abnormal Noise from transformers
- Any leak through transformer oil tank

4. Sample Room

- Operation of Exhaust System
- Any spillages
- Proper stacking of Samples

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5. Field Piping Area

- Any Leakages through flanges, Valves, PCV, Sample Points, PTs, TTs etc.
- Abnormal Sounds from PCV
- Condition of Walkovers
- Differential pressure in the Basket filter 101A and 101B and inform M&R (Mech) to clean the filter element when pressure drop exceeds 0.2 Kg / cm<sup>2</sup>.

6. Fire Water Tanks

- Any leakages from the tank
- Condition of Tank Body & other valves
- Position of all HOVs should be as per requirement

7. Fire Water Pump House& Piping

- Abnormal Noises
- Any Leaks through Main/Jockey Pump's, body, Valves, piping, PGs etc.
- Visually inspect Battery condition
- General Housekeeping
- Fuel level/Oil level/Coolant Level

8. In and Around C/R Building

- Any abnormality in C/R building, Worker's amenities Room
- Condition of Roads & Drains
- Condition of Worker's amenities Room
- Condition of PLC & SCADA Software & Hardware
- Condition of UCP software and hardware & telecom hardware
- Working of PAGA System
- Whether Spark arrestors installed to vehicles

9. Examples of Above Standard Conditions:

- All exhaust fans found in working condition
- In Day time illumination is switched off wherever not required
- No Wild growth in the field is found
- Workers are using PPE even during idle time

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The observations or findings during the above checks are recorded in shift log book (IMF/OPN/01) and the Location In charge reviews the log on daily basis and thereby assesses the condition of the plant.

Any reported substandard condition is brought to notice of concerned departmental head through maintenance log book (IMF/OPN/02), which is reviewed by Location In charge at least once in a month and the departmental heads are advised in written for early rectification.

Any event observed during the inspection is recorded in Event Register kept in control room and dealt as per Event Management System.

Any substandard condition recorded more than once is treated as repetitive and necessary remedial actions are initiated to eliminate the root cause.

For any recorded above standard condition positive recognition is given verbally/e-mail on as and when required basis.

5.2.3 In case of above mentioned abnormalities, if any corrective actions other than the maintenance activity are required, the same is initiated by the shift in-charge on advise by the concerned Manager. This advice can also be accepted telephonically with a corresponding note in the maintenance log book (IMF/OPN/02).

5.2.4 The impugned facility is isolated and the same is accepted back only on advise of the concerned Manager with the corresponding note on the maintenance log book. (IMF/OPN/02).

**5.3 The coordination with Visakhapatnam/Mallu Bhupala Patnam/Rajahmundry/JeelaKarra Gudem/Vijayawada /Suryapet / Bogaram /Secunderabad Control Rooms involves the following activities:**

5.3.1 Coordination regarding the starting and stopping of the pumps as per Pumping plan and in emergency/system failure cases.

5.3.2 To advise the other locations' control room about the various operating parameters when the pumping Is 'ON' and also to exchange the pumping figures on hourly basis. To record relevant details in IMF/OMP/03.

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MALLU BHUPALA PATNAM CONTROL ROOM ACTIVITIES

#### 6.0

#### RELEVANT RECORDS

Sl. No	Format Title	Format No.	Location	Responsibility
1	Shift log book	IMF/OPN/01	Control Room	Shift In-charge
2	Maintenance log book	IMF/OPN/02	Control Room	Shift In-charge
3	Cold work permit	IMF/OPN/03	Control Room	Shift In-charge
4	Hot work permit	IMF/OPN/04	Control Room	Shift In-charge
5	Certificate for Thermometer calibration	IMF/OPN/05	Control Room	Shift In-charge
6	Certificate for Hydrometer calibration	IMF/OPN/06	Control Room	Shift In-charge
7	PLC & Safety by-pass register	IMF/OPN/07	Control Room	Shift In-charge
8	Working at heights permit	IMF/OPN/09	Control Room	Shift In-charge
9	Electrical isolation & energization permit	IMF/OPN/10	Control Room	Shift In-charge
10	Operation log book	IMF/OMP/01	Control Room	Shift In-charge
11	Quality Control Register	IMF/OMP/02	Control Room	Shift In-charge
12	Product sample label - MBS	IMF/OMP/03	Control Room	Shift In-charge
13	Report from security guards	IMF/ROW/02	Control Room	Shift In-charge

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TITLE

MALLU BHUPALA PATNAM CONTROL ROOM ACTIVITIES

MALLU BHUPALA PATNAM CONTROL ROOM OPERATION CRITICAL PARAMETERS - ANNEXURE -1

PARAMETERS	VALUES	STATUS
Low Suction Pressure Mainline Pump	1.7 Kg/Sq.cm	Alarm
Low Suction Pressure Mainline Pump	1.2 Kg/Sq.cm	Tripping
Low-Low Pressure Suction Header	1.2 Kg/Sq.cm	Tripping
High Pressure Discharge Header	74.0Kg/Sq.cm	Alarm
High Pressure Discharge Header	75.6.0Kg/Sq.cm	Tripping
High-High Pressure Discharge Line	75.6.0 Kg/Sq.cm	Tripping
Pump casing Temperature	85 deg c	Alarm
Pump casing Temperature	90 deg c	Tripping
Pump Bearing DE Temperature	85 deg c	Alarm
Pump Bearing DE Temperature	90 deg c	Tripping
Pump Bearing NDE Temperature	85 deg c	Alarm
Pump Bearing NDE Temperature	90 deg c	Tripping
Pump Thrust Bearing Temperature	85 deg c	Alarm
Pump Thrust Bearing Temperature	90 deg c	Tripping
Motor Bearing DE Temperature	95 deg c	Alarm
Motor Bearing DE Temperature	105 deg c	Tripping
Motor Bearing NDE Temperature	95 deg c	Alarm
Motor Bearing NDE Temperature	105 deg c	Tripping
Motor winding -R	145 deg c	Alarm
Motor winding -R	155 deg c	Tripping
Motor winding -Y	145 deg c	Alarm
Motor winding -Y	155 deg c	Tripping
Motor winding -B	145 deg c	Alarm
Motor winding -B	155 deg c	Tripping
Pump Radial Vibration	3 MILS	Alarm
Pump Radial Vibration	4 MILS	Tripping
Pump Axial Vibration	+/- 0.45 mm	Alarm
Pump Axial Vibration	+/- 0.50 mm	Tripping
Motor Radial Vibration	3 MILS	Alarm
Motor Radial Vibration	4 MILS	Tripping
Low Level Sump Tank	300.0 mm	Alarm
Low Low Level Sump Tank	150.0 mm	Trip sump Pump
High Level Sump Tank	1600.0 mm	Alarm
High High Level Sump Tank	1750.0 mm	Trigger Station ESD

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**INTEGRATED MANAGEMENT PROCEDURE**

DOCUMENT NO: IMP/OMP/02

**TITLE**

PRODUCT SAMPLING, STORAGE AND DISPOSAL

**1.0 PURPOSE**

To provide guidelines for product sampling, storage and disposal while product is being pumped through MALLU BHUPALA PATNAM Station.

**2.0 SCOPE**

This is applicable to all petroleum products pumped to Secunderabad through MALLU BHUPALA PATNAM Station.

**3.0 REFERENCES**

- i) IMS/MR/7.5, IMS/MR/8.2.4
- ii) ASTM& QC Manuals for Non-aviation products.

**4.0 RESPONSIBILITY**

Shift in-charge assisted by Shift Engineer.

**5.0 PROCEDURE**

**5.1 PRODUCT SAMPLING:**

- 5.1.1 Product sampling to be done every two hours and Test A to be performed for checking Appearance, Density @ 15°C, Colour -Visual on minimum quantity of 500 ml. Any abnormality to be informed to VDS & SRS. Sample may be retained as advised by VDS.
- 5.1.2 Sampling frequency may be increased as advised by VDS, when the product pumped requires close monitoring of the quality and alerting respective locations for taking necessary measures. And such samples may be retained as per requirement/as advised by VDS.
- 5.1.3 Sample needs to be drawn and test A to be performed before transferring sump tank contents into mainline.

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INTEGRATED MANAGEMENT PROCEDURE

DOCUMENT NO: IMP/OMP/02

TITLE

PRODUCT SAMPLING, STORAGE AND DISPOSAL

5.1.4 Precautions to be taken for sampling:

- 5.1.4.1 When samples are required from various levels in a tank, the order of sampling should be from the top downwards so that each sample is obtained before the liquid at that level is disturbed.
- 5.1.4.2 Careless pouring and splashing will cause loss of light fractions and the sample must be poured from the sampling can into the sample containers by making use of funnels.
- 5.1.4.3 The sample should always be poured gently down the side of a funnel and never in a stream at the center.
- 5.1.4.4 The sample containers shall be closed immediately after the sample has been taken (within one minute of drawing).
- 5.1.4.5 The apparatus should be rinsed with the material to be sampled at least twice (or adequately) and allowed to drain before drawing sample. Sampling Apparatus and Containers are used separately product wise.
- 5.1.5 **Sample Containers:** The recommended sample container is a metal can with a screw cap.
- 5.1.6 **Sample labelling:** Sample container is labelled immediately after a sample is obtained. Gummed labels shall be used on aluminum and glass sample bottles only (IMF/OMP/03).
- 5.1.8 **Sample Collection:** In addition to the samples taken from the tanks, samples are to be collected as per the Latest Industry quality control manual. Samples are properly labelled and retained till the pumping batch is established in the receiving locations. Details of sample collection are recorded in QC Register (IMF/OMP/02).
- 5.1.9 **Sample Retention:** For retaining the sample following steps are adopted.
- 5.1.9.1 Sample of materials which may be affected by light or heat are stored in a cool, dark place. Periodical examination is made for leakage.

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5.1.9.2 Sample of product is kept in a separate chamber/Sample Room in order to prevent them from being misused. Adequate ventilation is provided in the chamber.

5.1.10 **Sample disposal:**

5.1.10.1 Critical tests are carried out by the receiving locations as per test category 'A' of Industry Quality Control manual while receipt is on and any variations from the mother sample, specifications are investigated by the receiving location in coordination with the pumping location.

5.1.10.2 Once the product is received in the storage tanks of the receiving location, the receiving location carries out batch formation test as per Appendix 15 of Industry Quality control manual and then the product is re-warehoused under specific batch No.

5.1.10.3 Any variation beyond the limits with the mother sample vis-à-vis is investigated by the pumping location. The sample retained is sent to the refinery or marketing laboratory for further investigations.

5.1.10.4 After ascertaining the above, the product sample is disposed of under the supervision of the shift in-charge. The sample thus collected is poured back in the sump tank through sample point. While pouring the product back into the tank care is taken not to splash the product nor any plastic funnel is used for pouring. Details of sample disposed are entered in Quality Control register (IMF/OMP/02).

5.1.10.5 The empty sample containers are cleaned and kept for future sampling.

**6.0 RELEVANT RECORDS**

Quality Control Register                    IMF/OMP/02  
Sample Label                                IMF/OMP/03

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<b>INTEGRATED MANAGEMENT INSTRUCTIONS</b>		DOCUMENT NO: IMI/OMP/01
<b>TITLE</b>		<b>STANDARD CHECKS FOR SMOOTH OPERATIONS</b>

#### 1.0 PURPOSE

To provide instructions for Standard Checks for Smooth Operation of MALLU BHUPALA PATNAM Station.

#### 2.0 REFERENCES

IMS Procedure: IMP/OMP/01

#### 3.0 RESPONSIBILITY

Shift In-charge

#### 4.0 INSTRUCTIONS

##### 4.1 ELECTRICAL:

- 4.1.1 Incoming Voltage level to be monitored and adjusted using OLTC by keeping it in Auto/Manual Mode.
- 4.1.2 Transformer HVWS system line up to be checked and pressure to be monitored in each shift.
- 4.1.3 DG to be kept in Auto mode whenever pumping is going on.

##### 4.2 OPERATIONAL:

- 4.2.1 Check the differential pressure across the basket filter under operation in each shift and inform M&R (Mech) to clean the filter element when pressure drop exceeds 0.2 Kg / cm<sup>2</sup>.
- 4.2.2 Check the differential pressure across the Strainer of the Pump under operation in each shift and inform M&R (Mech) to clean the same when pressure drop exceeds 0.3 Kg / cm<sup>2</sup>.

##### 4.3 SAFETY:

- 4.3.1 Ensure Jockey Pumps and Fire water pumps are kept in Auto Mode.
- 4.3.2 Fire Water tank level to be monitored and recorded in Operation log book at the beginning in each shift.
- 4.3.3 Fire Hydrant line Pressure to be monitored and recorded in Operation log book at the beginning in each shift.
- 4.3.4 Carryout monthly inspection of fire siren equipment & PAGA in co-ordination with F&S Officer.

#### 5.0 RELEVANT RECORDS

Shift log book  
Operation log book

IMF/OPN/01  
IMF/OMP/01

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INTEGRATED MANAGEMENT INSTRUCTIONS

DOCUMENT NO: IMI/OMP/02

TITLE

LINING UP OF MALLU BHUPALA PATNAMSTATION

**1.0 PURPOSE**

To provide instructions for lining up of Mallu Bhupala Patnam Station.

**2.0 REFERENCES**

IMS Procedure: IMP/OMP/01

**3.0 RESPONSIBILITY**

Shift In-charge

**4.0 INSTRUCTIONS**

**4.4 AT SUBSTATION:**

- 4.4.1 Ensure selection/line up of appropriate DOL/VFD breaker.
- 4.4.2 Check the voltages at 33 KV and 6.6 KV breaker and 440 V incoming breaker are within ( $\pm 10\%$ ) limit.
- 4.4.3 Ensure that PCV breaker is switched on.
- 4.4.4 Put Motor breaker of selected pumps in service position and ensure DC supply is ON.
- 4.4.5 Check the readiness of respective breakers/feeders/drives either in VFD mode or DOL mode.
- 4.4.6 Make sure all the relays are reset in the breaker.
- 4.4.7 Ensure 6.6 KV capacitor feeder is in service position with DC supply on and close the breaker.
- 4.4.8 Ensure that the selected pumps suction and discharge MOVs are in remote and feeder is ON.

**4.3 LINEUP OF MALLU BHUPALA PATNAMSTATION:**

- 4.3.1 Lining up of the station to be done taking the product quality into consideration. Alternate equipment(when redundancy is available) with appropriate product quality to be made online, wherever required.
- 4.3.2 Open the MOV-3017(Pump by pass valve).
- 4.3.3 Ensure either side HOVs of PCVs are open and PCV bypass Globe Valve is closed. PCV bypass valve may be used if PCV is under maintenance or for the reasons deemed fit by Shift In-charge.
- 4.3.4 Keep the stop switch of PCV in released position and reset the PCV.

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- 4.3.5 Line up the Flow meter (FT-3001 or FT-3002). Open MOVs on either side of selected Flow meter.
- Open MOV-3005 and MOV-3006 for lining up FT-3001
  - Open MOV-3007 and MOV-3008 for lining up FT-3002
- 4.3.1 Line up the Basket filters (101A or 101B or both) by opening either side MOV.
- Open MOV-3001 and MOV-3002 for lining up BK-101A
  - Open MOV-3003 and MOV-3004 for lining up BK-101B
- 4.3.2 Open Mallu Bhupala Patnam Station Limit MOVs 1201 & 1205, if not open, Pipeline was under shutdown.
- 4.3.3 Open Mallu Bhupala Patnam Station inlet and outlet valves MOV-3018 & 3019.
- 4.3.4 Close Mallu Bhupala Patnam By-Pass MOV-1203.
- 4.4 Make sure priming of mainline pumps before starting.
- 4.5 Inform Visakhapatnam and Rajahmundry before starting pumping operation.
- 4.6 Make sure the pipeline is made through upto Secunderabad Receiving Station.
- 4.7 Take clearance from VDS & RBS before start-up of pumps of MBS.
- 4.8 As deemed fit by the shift in-charge, some set alarms may be temporarily bypassed in PLC Input if suspected to be malfunctioning. This will be done strictly based on urgent requirements and the same to be logged in PLC Bypass Register (IMF/OPN/07) for the intimation of the concerned maintenance officer. Shift in-charge to modify set pressures, if required, keeping the same within station parameters and the same to be entered in Shift log book.

#### 5.0 RELEVANT RECORDS

Shift log book	IMF/OPN/01
PLC & Safety By-pass register	IMF/OPN/07

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INTEGRATED MANAGEMENT INSTRUCTION

DOCUMENT NO.: IMI/OMP/03

TITLE

OPERATION OF BOOSTER PUMPS AT MBS

**1.0 PURPOSE**

To provide guide lines for operation of Booster pumps at Mallu Bhupala Patnam station.

**2.0 REFERENCES**

IMS Procedure: IMP/OMP/01.

**3.0 RESPONSIBILITY**

Shift In-charge

**4.0 INSTRUCTIONS**

**4.1** Carryout out following checks 4.2 to 4.5 to start pumping operation.

**4.2 AT SUBSTATION:**

4.2.1 Check the voltages at 33 KV and 6.6 KV breaker and 440 V incoming breaker are within ( $\pm 10\%$ ) limit.

4.2.2 Ensure selection/line up of appropriate DOL/VFD breaker.

4.2.3 Make VFD and HVAC ready if pump will be operated in VFD mode.

4.2.4 Ensure that PCV breaker is switched on.

4.2.5 Put Motor breaker of selected pumps in service position and ensure DC supply is ON.

4.2.6 Ensure 6.6 KV capacitor feeder is in service position with DC supply on and close the breaker.

4.2.7 Ensure that the selected pumps suction and discharge MOVs are in remote and feeder is ON.

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TITLE

OPERATION OF BOOSTER PUMPS AT MBS

#### 4.3 AT THE PUMP HOUSE:

- 4.3.1 Selected pump motor bearing oil level and color to be checked. Always keep the bearing oil bath topped up.
- 4.3.2 Release Local STOP button.
- 4.3.3 Open the suction MOVs of the pump to be operated and prime the pump by proper venting.

#### 4.4 IN THE CONTROL ROOM:

- 4.4.1 Select DOL/VFD mode of operation appropriately.
- 4.4.2 Reset the batch in the flow computer/ PLC, if necessary.
- 4.4.3 Select the PCV in MANUAL mode.
- 4.4.4 Check Drain Valves from Pump Permissive ZSL-3800,3801,3802,3803, 3812, 3804, 3805, 3806, 3807, 3813, 3808, 3809, 3810, 3811, 3814 should be closed. Pump Permissive all conditions to be Healthy. Pump Interlocks conditions to be Healthy.
- 4.4.5 Select Manual Selection from Pump Train and from PLC start Pump auxiliaries namely DE seal fan (A OR C), NDE Seal fan (B or D), Cooler fan (A or B) and AOP.
- 4.4.6 When the sequence completes and UCP Pump permissive & interlocks are Ok, Pump ready to Start indication will become green in PLC Pump control screen.

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DOCUMENT NO.: IMI/OMP/03

TITLE

OPERATION OF BOOSTER PUMPS AT MBS

#### 4.5 START PUMPS AS PER FOLLOWING GUIDELINES:

- 4.5.1 Confirm flow rates to be pumped from Visakhapatnam.
- 4.5.2 Take clearance from the Shift In-charge at Visakha Control Room and inform Shift engineers at Rajahmundry Control Room.
- 4.5.3 Open PCV 2 to 3% manually in case of DOL (In case of VFD, PCV will be opened fully).
- 4.5.4 Give START command to selected pump (If the pump is in Manual mode after following the sequence of activities as per 4.4.5 to 4.4.6.).
- 4.5.5 In case of DOL operation, operate PCV suitably to control flow, line pressure, and suction pressure and discharge header pressure as specified in CRITICAL PARAMETERS.
- 4.5.6 In case of VFD operation, enter the required flow rate in VFD control system, if VFD PID is in Auto Mode or Enter %Speed, if VFD is manual mode.
- 4.6.6 Monitor Pump and Motor parameters from UCP regularly.

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**INTEGRATED MANAGEMENT PROCEDURES**

ANDHRA PRADESH

**TITLE**

SWITCHOVER OF PUMPS AT MBS

**1.0 PURPOSE**

To provide guide lines for switching over of pumps at Mallu Bhupala Patnam station.

**2.0 REFERENCES**

IMS Procedure: IMP/OMP/01.

**3.0 RESPONSIBILITY**

Shift In-charge

**4.0 INSTRUCTIONS**

4.1 Take clearance from Visakha Control room for pump switch over.

4.2 Idle pump is kept ready for operation by proper venting and other precautions before starting as displayed in PLC before Switch Over and suction MOV should be kept open.

4.3 Running pump to be tripped.

4.4 Idle pump to start immediately as per instructions mentioned in IMI/OMP/03.

4.5 Set the flow rate as per requirement and inform Visakhapatnam & Rajahmundry about the pump S/O.

4.6 Record the events in shift log book.

**5.0 Documents to be maintained**

1. Shift Log Book (IMF/OPN/01)
2. Operations Log Book (IMF/OSP/01)

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INTEGRATED MANAGEMENT INSTRUCTIONS

DOCUMENT NO: IMI/OMP/05

TITLE

SHUT DOWN OF MALLU BHUPALA PATNAM BOOSTER STATION

#### 1.0 PURPOSE

To provide guide lines for taking Shutdown of pumps at Mallu Bhupala Patnam (Planned Shutdown).

#### 2.0 REFERENCES

IMS/MR/7.5

#### 3.0 RESPONSIBILITY

Shift In-charge

#### 4.0 INSTRUCTIONS

4.1 Take clearance from VDS for shutdown of Mallu Bhupala Patnam station as per Pumping plan or as instructed by VDS.

4.2 Stop the pump running by giving stop command from PLC. Stop all auxiliaries one by one if pump stopped in manual mode.

4.3 If pumping towards SRS is ON, Open MOV-1203 (Station Bypass Valve). Else after taking VVSPL shutdown as per IMP/OPN/02, close MOV- 1201 and MOV-1205.

4.4 Then follow sequence mentioned below for shutting down the station.

4.4.1 close MOV-3018.

4.4.2 Close MOVs on either side of basket filter whichever is online.

4.4.3 Close MOVs on either side of FT whichever is online.

4.4.4 Close MOV-3019.

#### 5.0 RELEVANT RECORDS

Operations log book IMF/OVZ/03

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INTEGRATED MANAGEMENT INSTRUCTIONS

DOCUMENT NO: IMI/OMP/06

TITLE

OPERATION OF BOGARM STATION UNDER EMERGENCY CONDITIONS

**1.0 PURPOSE**

To provide guidelines for operation of Mallu Bhupala Patnam station under emergency conditions.

**2.0 REFERENCES**

IMS Procedures: IMP/OMP/01

**3.0 RESPONSIBILITY**

Shift In-charge

**4.0 INSTRUCTIONS**

**4.1 In case of power failure while pumping is 'ON' follow below guidelines :**

4.1.1 Inform Visakhapatnam & Rajahmundry.

4.1.2 Start DG Set (If not started in Auto mode).

4.1.3 Through power from DG close both Suction and Discharge MOVs of mainline pumps.

4.1.4 Once supply resumes, start operations after intimating Visakhapatnam & Rajahmundry.

**4.2 In case of pipeline failure, follow below guidelines:**

4.2.1 Any leakage in the pipeline can be detected by comparison of (i) flow rate of dispatch station and receipt station in respective Volume Balance Section (ii) increase in flow and drop in pressure and (iii)LDS/PIDS alarms. This may be reconfirmed by site report.

4.2.2 Actuate ESD through SCADA. Inform LIC and all location C/R along with VDS. Ensure closure of SVs on the both sides of the leak location both from SCADA as well as Security Guard of concerned SV/IP station.

4.2.3 Follow procedure of Emergency Control Plan (OFF SITE/ON SITE) as the case may be.

4.2.4 Clear the spillage.

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TITLE      OPERATION OF MALLU BHUPALA PATNAMSTATION UNDER EMERGENCY CONDITIONS

4.2.5 Arrange for the repairs.

4.3 In case of Major Spillage in Booster Station, follow below guidelines:

It may be due to Joint Failure or gasket failure.

4.3.1 Take shutdown of the system by informing the other stations, or activate the 'ESD' button depending upon the gravity of the situation.

4.3.2 Inform Head-Operations and Head – Maintenance and LIC.

4.3.3 Co-ordinate with Maintenance group for attending the job.

4.3.4 Follow procedure of Emergency Control Plan (OFF SITE/ON SITE) as the case may be.

4.3.5 Record report of operation under emergency conditions in Shift log book (IMF/OPN/01), Maintenance log book (IMF/OPN/02) and Operation log book (IMF/OMP/01) as applicable.

5.0 RELEVANT RECORDS

Shift log book            IMF/OPN/01  
Maintenance log book IMF/OPN/02  
Operations log book IMF/OMP/01

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INTEGRATED MANAGEMENT INSTRUCTIONS

DOCUMENT NO: IMI/OMP/07

TITLE

SUMP TANK OPERATION

**1.0 PURPOSE**

To provide instructions for operation of Sump tank.

**2.0 REFERENCES**

IMS Procedure: IMP/OMP/01

**3.0 RESPONSIBILITY**

Shift In-charge

**4.0 INSTRUCTIONS**

4.1 Two sump tanks [No.1 for HSD & SKO, No.2 for MS] are provided to accommodate product coming out of priming and Draining of pumps, TSVs, leakages, Basket filter operation and sample disposal.

4.2 Sump tank level to be brought down to 15 cm. as and when it reaches 120 cm or it should be evacuated as and when required depending on the product being pumped and O & M requirements like before cleaning of basket filters etc.

4.3 Monitor Sump tanks level at the start of each shift.

If there is any abnormal increase in the level, investigate the reason and empty out tank. Care is to be taken that sump tank no.1 is emptied out only when HSD pumping is on and sump tank no.2 when MS pumping is on.

4.4 Sample to be collected before emptying out the tank. Test A to be performed on the sample collected and accordingly quantity to be emptied out to be determined. Sample details to recorded in the shift log book.

4.4 High level sump tank alarm is set at 160 cm.

4.5 High- High level sump tank alarm is set at 175 cm.

4.6 Record details of operation of sump tank in the Shift log book (IMF/OPN/01).

**5.0 RELEVANT RECORDS**

Shift log book IMF/OPN/01

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**INTEGRATED MANAGEMENT INSTRUCTIONS**

DOCUMENT NO: IMI/OMP/08

TITLE

ISSUE OF HOT/ COLD/ Height/ Electrical Isolation WORK PERMITS

**1.0 PURPOSE**

To provide guidelines for issue of Cold work, Hot work, work in confined spaces & Working at Height, Electrical Isolation and Energization Permit to carry out M & R jobs in station

**2.0 REFERENCES**

IMS Procedure: IMP/OMP/01, OISD-STD-105, Process Hazard Identification and Risk Assessment Procedure

**3.0 RESPONSIBILITY**

**For Cold Work Permit: (Station)**

Receiver - Job Engineer  
Issuer - Shift - In-Charge

**For Cold Work Permit: (ROU)**

Receiver - Job Engineer  
Issuer - Maintenance-In-Charge/Location-In-Charge @ VDS

**For Hot Work/Work in Confined space/Working at Heights Permit (Station)**

Receiver - Job Engineer  
Concurred - Shift - In-Charge  
Issuer - Maintenance-In-Charge for Maintenance Dept. related works @ IPS1  
- Operations-In-Charge for Maintenance Dept. related works @ IPS1  
- Location-In-Charge/ Terminal-In-Charge at other Locations of VVSPL

**Electrical Isolation and Energization Permit**

Receiver - Job Engineer  
Concurred - Shift - In-Charge  
Issuer - Maintenance-In-Charge/Electrical-In-Charge

**4.0 INSTRUCTIONS**

4.1 Generally Online work permit system shall be adopted for issuing/receiving of work permits. In case of jobs on ROU and failure of on line system, manual permit to be issued.

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**INTEGRATED MANAGEMENT INSTRUCTIONS**

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TITLE TO ISSUE WORK PERMITS TO MAINTENANCE OFFICER FOR CARRYING OUT M&R JOBS

4.2 The job engineer responsible for carrying out jobs apart from regular activities initiates the work permit and approaches the Shift In-charge for his concurrence (IMF/OPN/03, IMF/OPN/04, IMF/OPN/09).

4.3 In case of Electrical Isolation and Energization work permit (IMF/OPN/10) OIC-Electrical approaches the Maintenance In-charge for his concurrence.

4.4 The work permit for Working at Heights is applicable to all the jobs to be carried out at any elevation more than 3 mts.

4.5 Ensure the proper shielding of the work site, degassing of the equipment, isolating the equipment and other necessary activities as detailed in the permits. Ensure that fire hydrant line and fire extinguishers are available at the site as detailed in respective work permits.

(Responsibility: Job Engineer)

4.6 Make an inspection of the site and if satisfied with the arrangement made by the Job engineer, issue the permit for a specified duration on a particular working day at a particular work location inside Mallu Bhupala Patnam station. Also verify required PPEs, FF equipment as detailed in respective work permits and PPE matrix as given below are compiled in totality before issuing the permit. Informal personal risk assessments prior to authorizing to undertake tasks is performed and logged in the respective permits, if any. Based on a practical approach "STAR - Stop, Think, Act, Review"

(Responsibility : Permit Issuer ).

4.7 All permits issued will be entered in Shift log book in Control room before starting the actual job.  
[Responsibility: Shift In-charge/ OIC]

4.8 During the course of execution of the job, shift officer to make at least one round of the job location per shift and verify for compliance status of the requirements for PPE and FFE (Fire Fighting Equipment) as given in work permit and PPE matrix as per annexure A enclosed & log observations of the visit in respective work permits and/or critical behavioral check list (IMF/OPN/12).

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**4.9** On completion of job, receiver of the permit shall approach the issuer for closure of the permit and hard copy of closed permit shall be submitted to shift-in-charge for records.

**5.0 RELEVANT RECORDS**

- o Cold Work Permit IMF/OPN/03
- o Hot Work Permit IMF/OPN/04
- o Working at Height Permit IMF/OPN/09
- o Electrical Isolation & Energization Permit IMF/OPN/10
- o PPE Matrix – Annexure-I IMP/OVZ/01
- o Critical Behavioral check list IMF/OPN

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Annexu  
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Personal Protective Equipments (PPE'S) to be used in operating area													
Sr.No.	Activity	Helmet	Safety Shoes	Goggles	Hand Gloves	Hand Gloves PVC	Hand Gloves ASB	Ear Plug S	Canister	B. Apparatus	Gas Mask	Dust Mask	Safety Belt
1	Visitors / Employees in Plant Area	Yes	Yes	--	--	--	--	--	--	--	--	--	--
2	Taking Sample in Plant	Yes	Yes	Yes	--	--	--	--	--	--	--	--	--
3	Tank gauging	Yes	Yes	Yes	--	--	--	--	--	--	--	--	--
4	Mechanical /FAS jobs- Pigging/ valve maint/pump maint./FE maint.	Yes	Yes	--	Yes	--	--	--	--	--	--	--	--
5	Noisy Area -pump /DG shed	Yes	Yes	Yes	--	Yes	--	Yes	--	--	--	--	--
6	Welding	Yes	Yes	Yes	--	Yes	--	Yes	--	--	Yes	--	--
7	Grinding	Yes	Yes	Yes	--	Yes	--	Yes	--	--	--	Yes	--
8	Working at Height - Painting, crane maint. & b.filter	Yes	Yes	Yes	--	Yes	--	--	--	--	--	--	Yes
9	Chemicals Handling - Battery maint. & CI handling	Yes	Yes	--	Yes	--	Yes	--	--	--	Yes	--	--
10	Electrical & Instrumentation Jobs	Yes	Yes	--	--	Yes	--	--	--	--	--	--	--
11	Working in shed/stores	Yes	Yes	Yes	--	--	--	--	--	--	--	--	--
12	Confined Space	Yes	Yes	Yes	--	--	--	--	Yes	--	--	--	--

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**INTEGRATED MANAGEMENT PROCEDURES**

DOCUMENT NO.: IMP/OPN/01

**TITLE**

**START-UP PROCEDURES FOR VVSPL**

**1.0 PURPOSE**

To lay down the procedure for start-up of VVSPL operations.

**2.0 SCOPE**

This is applicable to start-up of VVSPL operations.

**3.0 REFERENCE**

IMS/MR/7.5

**4.0 RESPONSIBILITY**

Shift In-charge

**5.0 PROCEDURE**

**5.1 Start-up procedure for VVSPL section**

5.1.1 GRS to open SLV and bring down back pressure to 2.0 kg/sq.cm.

5.1.2 MBS to open SLV.

5.1.3 VDS to start Booster pump after opening SLVs at VDS, RBS and VBS.

5.1.4 SBS to start one pump in co-ordination with VDS and VBS.

5.1.5 VDS to start one pump.

5.1.6 VBS to start one pump and H/C if required.

5.1.7 VDS to start second pump.

5.1.8 RBS to start H/C and pump depending on pumping schedule.

5.1.9 MBS to start pump depending on pumping schedule.

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### 5.2 Start-up procedure for VVPL section

5.2.1 VDS to start Booster pump after opening SLV.

5.2.2 VDS to start one mainline pump.

5.2.3 VBS to open SLV and PCV and start receiving product.

5.2.4 VBS to start one mainline pump.

5.2.5 VDS to start second mainline pump.

5.2.6 RBS to start H/C and pump depending on pumping schedule.

5.2.7 IPS-1, 2 & 3 to start mainline pumps depending on pumping schedule.

### 6.0 RELEVANT RECORDS:

S. No	Format Title	Format No.	Location	Responsibility
1	Shift log book	IMF/OPN/01	Control Room	Shift In-charge
2	Operations log book	IMF/OMP/01	Control Room	Shift In-charge

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**INTEGRATED MANAGEMENT PROCEDURES**

DOCUMENT NO.: IMP/OPN/02

TITLE SHUTDOWN PROCEDURES FOR VVSPL

**1.0 PURPOSE**

To lay down the procedure for shut down of VVSPL.

**2.0 SCOPE**

This is applicable for shutdown of VVSPL operations.

**3.0 REFERENCES**

IMS/MR/7.5.1

**4.0 RESPONSIBILITY**

Shift In-charge

**5.0 PROCEDURE**

**5.1 For shutdown of VVPL Section :**

5.1.1 Stop Rajahmundry Heart cut and RBS/IPS-01/IPS-02 Pumps, if on

- 5.1.2 a) If VDS pumps are running in Series mode Then stop all pumps in second set (MP4/5/6) and stop one of the first set pumps if two are running.  
b) If VDS pumps are running in Parallel mode then Stop one pump at VDS, if two are running:

5.1.3 Close FCV, Station Inlet Valve 30-MOV 1503 at VBS.

5.1.4 Stop pumps at VDS once VBS inlet pressure raises upto 20 Kg/Cm<sup>2</sup>.

5.1.5 Close Station Inlet Valve 10-MOV 1117 at VDS.

5.1.6 For long shutdown SLV, manifold valve and tank inlet valve at all locations to be closed.

5.1.7 Sectionalizing valve at SV1, SV2, SV3, SV4, SV5 and valves at Intermediate Pigging Station IP1, IP2 can be closed if required.

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LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

	HINDUSTAN PETROLEUM CORPORATION LIMITED VISAKHA- VIJAYAWADA- SECUNDERABAD PIPELINE MALLU BHUPALA PATNAM ANDHRA PRADESH	ISSUE NO:1 REVISION NO.:00 EFFECTIVE DATE: 24/10/2020 SHEET: 2 OF 3
TITLE	INTEGRATED MANAGEMENT PROCEDURES	
	SHUTDOWN PROCEDURES FOR VVSP	

#### **5.2 For shutdown of VSPL Section:**

- 5.2.1 Stop Suryapet Heart cut, if on
  - 5.2.2 (a) If VBS pumps are running then
    - 5.2.2.1 Stop one pump at VBS, if two are running.
    - 5.2.2.2 Close PCV, Station Inlet Valve 50-MOV-1703 at GRS.
    - 5.2.2.3 Stop Pumps at SBS & BBS, if running and then second pump at VBS once Ghatkesar pressure raises upto 20 Kg/CM<sup>2</sup>.
    - 5.2.2.4 Close down stream Station Limit Valve 30-MOV-1524 at VBS immediately.
    - 5.2.2.5 For long shutdown Close Station Limit Valve at SBS, BBS, GRS, manifold valve at SBS, GRS and pumping manifold valve at VBS, Tank inlet valve at SBS/GRS and Tank outlet valve at VBS.
      - (b) If VBS pumps are not running :
    - 5.2.2.6 Stop pumps at BBS. Close PCV, Station Inlet Valve 50-MOV-1703 at GRS.
    - 5.2.2.7 Stop Pumps at SBS once Ghatkesar pressure raises upto 20 Kg/Cm2.
    - 5.2.2.8 Close Upstream Station Limit Valve MOV-1017 and Downstream Station Limit valve MOV-8025 at BBS.
    - 5.2.2.9 Close Upstream Station Limit Valve 40-MOV-1601 and Downstream Station Limit valve 40-MOV-1615 at SBS.
    - 5.2.2.10 Close SBS heart cut temporarily, if ON
    - 5.2.2.11 Close VBS downstream Station Limit Valve 30-MOV-1524 once Inlet pressure at SBS raises upto 40 Kg/Cm2.
    - 5.2.2.11 Close VBS station outlet valve 30-MOV-1522
    - 5.2.2.12 For long shut down close SLV at GRS, Close manifold valve at SBS, GRS, Tank inlet valve at SBS/GRS.
    - 5.2.2.13 Sectionalizing valve SV6, SV7, SV8, SV9, SV10, SV11, SV12, SV13, SV14, SV15, SV16, SV18, SV19, SV20, SV21 can be closed if required.

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**INTEGRATED MANAGEMENT PROCEDURES**

DOCUMENT NO.: IMP/OPN/02

**TITLE**

**SHUTDOWN PROCEDURES FOR VVSPL**

**5.3 For shutdown of VVSPL Section :**

- 5.3.1 Take VSPL shutdown first as per procedure mentioned in For Shutdown of VSPL Section (Refer 5.2)
- 5.3.2 Then take VVPL shutdown as per procedure mentioned in For shutdown of VVPL Section (Refer 5.1)
- 5.4 VSPL shutdown as mentioned in procedure 5.2 will be controlled by VBS.
- 5.5 Shutdown procedure mentioned in 5.1,5.2, 5.3 are available through SCADA as VVPL Custom shutdown, VSPL custom shutdown, VVSPL custom shutdown respectively. VVPL, VSPL, VVSPL custom shutdown can be initiated by VDS control room, whereas VSPL custom shutdown can be initiated either by VBS control room or VDS control room.

**6.0 RELEVANT RECORDS**

S. No	Format Title	Format No.	Location	Responsibility
1	Shift log book	IMF/OPN/01	Control Room	Shift In-charge
2	Operations log book	IMF/OMP/01	Control Room	Shift In-charge

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**INTEGRATED MANAGEMENT PROCEDURES**

DOCUMENT NO.: IMP/OPN/03

**TITLE**

PROCEDURE FOR EMERGENCY SHUTDOWN OF VVSPL

**1.0 PURPOSE**

To lay down procedure for Emergency Shut down of VVSPL.

**2.0 SCOPE**

This is applicable for Emergency Shut down of VVSPL through SCADA.

**3.0 REFERENCE**

IMS/MR/7.5.1

**4.0 RESPONSIBILITY**

Shift In-charge

**5.0 PROCEDURE**

**5.1 Conditions when Emergency shut down to be taken.**

5.1.1 Major leakage or rupture in the pipeline.

5.1.2 Any major incident like fire in any station along the pipeline.

5.1.3 Any other undesirable situation which calls for immediate shut down of pipeline operation.

5.2 Confirm the authenticity of any such situation from the right source.

5.3 Actuate ESD through SCADA of VVSPL which will take following step as multicast message to all locations including Sectionalizing valve & IP station.

**Multicast message to OS :**

**5.3.1 Sequence at Visakha Despatch:**

5.3.1.1 Activate Station PLC ESD point.

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INTEGRATED MANAGEMENT PROCEDURES

DOCUMENT NO.: IMP/OPN/03

TITLE

PROCEDURE FOR EMERGENCY SHUTDOWN OF VVSPL

5.3.1.2 Stop all pumps 10-PA-CF-101A,B,C (BP-1/2/3), 10-PA-CF-102A,B,C(MP-1/2/3), 10-PA-CF-103A,B,C(MP-4/5/6), 10-PA-CF-104 (MP-7)

5.3.1.3 Close SOV & SLV 10-MOV-1117, 1118.

**5.3.2 Sequence at OS Rajahmundry Intermediate**

5.3.2.1 Activate Station PLC ESD point

5.3.2.2 Close 20-MOV-1304

5.3.2.3 Stop all pumps 20-PA-CF-101A,B,C (MP-1/2/3), 20-PA-CF-102A,B,C (MP-4/5/6) , 20-PA-CF-103 (MP-7)

5.3.2.4 Close SLV and SIV and Bypass valve 20-MOV-1301,1303,1311, 1313, 1314

**5.3.3 Sequence at OS Vijayawada Intermediate**

5.3.3.1 Activate Station PLC ESD point

5.3.3.2 Close 30-MOV-1528

5.3.3.3 Stop all pumps 30-PA-CF-101A,B,C,D (MP -1/2/3/4), 30-PA-102A,B (BP- 1/2)

5.3.3.4 Close SLV, SIV and By pass valve 30-MOV-1501,1503, 1525, 1522, 1524

**5.3.4 Sequence at OS Suryapet Intermediate**

5.3.4.1 Activate Station PLC ESD points

5.3.4.2 Close 40-MOV-1620

5.3.4.3 Stop all pumps 40-PA-CF-101A,B & 40-PA-CF-102A,B

5.3.4.4 Close SLV, SIV, By-pass valve 40-MOV-1601, 1603, 1604, 1613, 1615

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**5.3.5 Sequence at OS Ghatkesar Receiving**

5.3.5.1 Activate Station PLC ESD points.

5.3.5.2 Close SLV, SIV valve 50-MOV-1701, 1703.

**5.3.6 Sequence at OS Mallu Bhupala Patnam Intermediate**

5.3.6.1 Activate Station PLC ESD points.

5.3.6.2 Stop all pumps 15-PA-CF-101A, B, C

5.3.6.2 Close SLV, SIV valve MOV-1201, MOV-1205, MOV-3018 &MOV-3019.

**5.3.6 CLOSE ALL SV's :**

Sectionalizing valve of SV1(10-MOV-1001),SV2(10-MOV-1002),SV3(10-MOV-1003),SV4(10-MOV-1004),SV5(10-MOV-1005),SV6(30-MOV-1006),SV7(30-MOV-1007),SV8(30-MOV-1008),SV9(30-MOV-1009),SV10(30-MOV-1010),SV11(30-MOV-1011),SV12(30-MOV-1012),SV13(30-MOV-1013),SV14(40-MOV-1014),SV15(40-MOV-1015),SV16(40-MOV-1016),SV18(40-MOV-1018),SV19(40-MOV-19),SV20(40-MOV-1020),SV21(40-MOV-1021)

5.4 For all pipeline emergencies, Emergency Shutdown sequence in SCADA shall only be initiated by SMCS at VDS control room. If any pipeline emergencies are noted at MBS, RBS, VBS, SBS, GRS control rooms they shall advise VDS to initiate Pipeline ESD thru SCADA.

5.5 However, Station emergency shutdown initiated from station PLC at RBS/VBS/SBS shall not give any command to station limit valves and open station Bye pass valve. The PLC shall trip all the pumps, close all the suction discharge valves of all the pump, station inlet/outlet valve, h/c receipt valve, all manifold valves and any other MOV's controlled from PLC. If bye pass valve fails to open due to any reason, respective stations shall advise VDS control room to initiate Pipeline ESD.

5.6 While VVPL is in operation, for any station emergencies at GRS, before activating their station ESD, GRS shall advise VDS control room to initiate pipeline Emergency shutdown. After advising VDS, concurrently GRS shall activate their Station PLC shutdown.

5.7 While VVPL is in operation, for any station emergencies at VBS, before activating their station ESD, VBS shall advise VDS control room to initiate pipeline Emergency shutdown, After advising VDS, concurrently VBS shall activate their Station PLC shutdown.

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- 5.8 ESD of pipeline when activated from VDS, it shall be intimated to all control rooms. All the control rooms shall immediately switch over to monitoring the ESD sequence screen in SCADA and ensure that their respective station related shut down activities are occurring through SCADA. For any reason, if they don't take place they shall do so from their station PLC.

#### 6.0 RELEVANT RECORDS

S. No	Format Title	Format No.	Location	Responsibility
1	Shift log book	IMF/OPN/01	Control Room	Shift In-charge
2	Operations log book	IMF/OMP/01	Control Room	Shift In-charge

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VISAKHA-VIJAYAWADA-SECUNDERABAD PIPE LINE

LIST OF FORMS

Dept/Section: OPERATIONS M B PATNAM

Sl. No.	Form No.	Form Title	Reference IMP/IMI No.	Retention Period
1	IMF/OPN/01	Shift log book	IMP/OMP/01	3 years
2	IMF/OPN/02	Maintenance log book	IMP/OMP/01	1 year
3	IMF/OPN/03	Cold work permit	IMI/OMP/08	1 year
4	IMF/OPN/04	Hot work permit	IMI/OMP/08	1 year
5	IMF/OPN/05	Certificate for Thermometer calibration	IMI/OPN/01	1 year
6	IMF/OPN/06	Certificate for Hydrometer calibration	IMI/OPN/02	1 year
7	IMF/OPN/07	PLC & Safety by-pass register	IMI/OMP/02	1 year
8	IMF/OPN/08	Working at heights permit	IMI/OMP/08	1 year
9	IMF/OPN/09	Electrical Isolation & Energization Permit	IMI/OMP/08	1 year
10	IMF/OPN/10	Critical Behavior Checklist	IMP/OMP/01	1 year
11	IMF/OMP/01	Operations log book	IMP/OMP/01	2 years
12	IMF/OMP/02	Quality Control Register	IMP/OMP/02	1 year
13	IMF/OMP/03	Sample label	IMP/OMP/02	Till batch clearance at receiving locations/As advised by VDS

Signature of  
Department Head



IMF/OPN/01

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हिन्दुस्तान पेट्रोलियम कार्पोरेशन लिमिटेड

## विशाख विजयवाडा सिकंदराबाद पाईपलाईन विशाखापटनम्

HINDUSTAN PETROLEUM CORPORATION LIMITED

**VISAKHA-VIJAYAWADA-SECUNDERABAD PIPELINE**

पाली लाग पुस्तिका/SHIFT LOG BOOK

दिनांक/Date \_\_\_\_\_ पाली/Shift \_\_\_\_\_ स्टेशन/Station \_\_\_\_\_

Patnam राजमन्डी/Rajahmundry विजयवाडा/Vijayawada

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विशाखा विजयवाडा सिकंदराबाद पाइपलाईन विशाखापटनम  
HINDUSTAN PETROLEUM CORPORATION LIMITED  
VISAKHA-VIJAYAWADA-SECUNDERABAD PIPELINE**

## अनुरक्षण लाग पुस्तिका/MAINTENANCE LOG BOOK

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**HINDUSTAN PETROLEUM CORPORATION LIMITED**  
**VISAKHA-VIJAYAWADA-SECUNDERABAD PIPELINE**

## अनुरक्षण लाग पुस्तिका/MAINTENANCE LOG BOOK

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विशाख विजवाडा सिंकंदराबाद पाईपलाईन विशाखापटनम  
HINDUSTAN PETROLEUM CORPORATION LIMITED  
VISAKHA-VIJAYAWADA-SECUNDERABAD PIPELINE

IMF/OPN/03

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कार्यस्थल/LOCATION:

क्रम संख्या/Sl. No. \_\_\_\_\_

## शीत कार्य अनुजप्ति/ COLD WORK PERMIT

कार्यानुजप्ति/WORK CLEARANCE \_\_\_\_\_ दिनांक के/of date \_\_\_\_\_ समय से/FROM hrs \_\_\_\_\_ दिनांक के/of date \_\_\_\_\_ समय तक/TO hrs. (पार्टी के लिए वैध यदि पुनः नुतनीकृत न किया जाए /valid for the shift unless renewed)  
(विभाग/शाखा/ठेकेदार) के लिए जारी/ ISSUED TO : DEPARTMENT/SECTION/CONTRACTOR : \_\_\_\_\_  
कार्य का सभी स्थान (क्षेत्र/इकाई/उपकरण संख्या)/EXACT LOCATION OF WORK (AREA/UNIT/EQUIPMENT NO. etc): \_\_\_\_\_

## कार्य-विवरण/DESCRIPTION OF WORK:

अनुजप्ति देने से पुर्व निम्नलिखित मर्दाँ की जाँच सुनिश्चित करें/THE FOLLOWING ITEMS SHALL BE CHECKED BEFORE ISSUING THE PERMIT  
अंचित खाली में सही (✓) का निशान लगाएं. (\*) निशान वाले खाली की पालना प्राप्तकर्ता सुनिश्चित करें/Tick (✓) mark in the appropriate box.  
Checklist items marked with asterisk (\*) shall be compiled by receiver

क्रम संख्या Sl. No.	मद/Item	किया / Done	आवश्यक नहीं/Not Reqd.
1	उपकरण/कार्यक्षेत्र का निरीक्षण किया /Equipment / work Area inspected		
2	आसपास की जाह जाँची, सफ की और इक दिया /Surrounding area checked, cleaned and covered		
3	उपकरण छुका/विच्छेदित/बंद/ पृथक्कृत/ जड़ किया दुआ है./ Equipment / blinded/ disconnected /closed / isolated/wedge opened.		
4	उपकरण को अलिंगित/ दबावबुक्त किया/ Equipment properly drained and depressurized		
5	उपकरण को विद्युत विच्छेदित किया गया/ Equipment electrically isolated तथा परिषट संख्या _____ दबारा टैग किया गया /and tagged vide permit No.....		

क्रम संख्या Sl. No.	मद/Item	किया / Done	आवश्यक नहीं/Not Reqd.
6	उपकरण पानी से साफ किया / Equipment water flushed		
7	उपकरण को वाष्प से अलिंगित साफ किया /Equipment properly steamed/ purged		
8	हवा एवम प्रकाश की उपर्युक्त व्यवस्था की /Proper ventilation and lighting provided		
9	शेष हृदर्दी की तथा सावधानी बोर्ड लगाए गए/Area cordoned off & caution boards / tags provided		
10	गैस टेस्ट: Gas test : HC <sub>s</sub> /Toxic etc. हाइड्रोकार्बन HC <sub>s</sub> = %एलईपी/LEL जहरिली गैस Toxic gas = पीपीएम/ ppm		

## अभियुक्तियाँ/Remarks:

- 1] गतिविधि से निम्नलिखित अनियोन्नक घटना आपेक्षित हैं.(उपयुक्त मद पर निशान लगाएं): आक्सीजन की कमी/एच2एस, बिषीटी गैस/ज्वलनशील गैस/प्रोप्रेटिक नीहा/कायकारी रसायन/चम्प संकोषण/कोई अन्य/ The activity has the following expected residual hazards [Tick the relevant items ]Lack of Oxygen / H2S, Toxic Gases / Combustible gases/ pyro- phoric Iron / Corrosive Chemicals / Steam – condensate / Others
- 2] सामान्य संख्यी उपकरण के अतिरिक्त निम्नलिखित अतिरिक्त स्वयम् सुरक्षा उपकरणों का उपयोग करेंसुरक्षा टोपी/ सुरक्षा बूट/दस्तानों/ब्लाइर सुटायेहर का कवच/एपरना/पू-प्र. चर्सों/पुन से वापाके लिए शास्त्र यंत्र/शुद्ध हवा नुच्छटार्जिवर रेल/ सुरक्षा पेटीहवा की लाइन / कर्ण मुरब्बन्द हस्तायी/ Following additional PPE to be used in addition to standards PPE (Helmet, Safety Shoes, Hand gloves, Boiler suit/Face shield / Apron / Goggles / Dust Respirator / Fresh Air Mask / Life line / Safety Belt / Airline / Earmuff etc.
- 3] यदि कोई अतिरिक्त सावधानी/Additional precaution if any: \_\_\_\_\_
- 4] अन्यान्य निर्देश निम्नलिखित हैं./General instructions are overleaf

परिषट देने वाले का नाम तथा पदनाम Issuer Name & Designation	परिषट देने वाले के हस्ताक्षर Issuer Signature	प्राप्तकर्ता का नाम तथा पदनाम Receiver Name & Designation	प्राप्तकर्ता के हस्ताक्षर Receiver's Signature

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LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

प्राप्तकर्ता/कार्यस्थल प्रति/RECEIVER COPY / LOCATION COPY  
(After Completion of job please return the permit to the issuer)

### नवीकृत अनुशास्ति/CLEARANCE RENEWAL

## **सामान्य निर्देश / General Instructions**

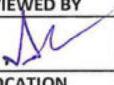
- 1) यह परमिट सामान्यीकृत की सभी रासायनिक संस्थानों में बदले हुए सुनिश्चित करते हुए कि रासी शाकी/पश्चाका को संबंधित जानकारीयाँ दे दी गयी हैं। जरूर आवश्यक हो खालप्रिय भी नहीं हैं कराएं। The work permit shall be filled up carefully and accurately in clear handwriting ensuring that complete information is provided in all the sections/ subsections. Sketches should be provided wherever possible to avoid miscommunication.
  - 2) कार्य शुरू करने से पहले संस्कृत उपकरणों की नियापत्रण, किए जाने वाले परियालन एवं उनसे सम्बंधित दूरिटनाओं को ध्यान में रखकर समुचित सावधानी एवं उपकरणों के प्रबलाप के प्रयत्न करें।Appropriate safe guards and required personnel protective equipment (PPEs) shall be determined by a careful analysis of the potential hazards and the operations to be performed prior to starting the work.
  - 3) पहले परियालन/रखावा/ठेकेदार/अनुनियोगिता विभागों से अतिरिक्त आवश्यकता में दर्ज करें/Requirement of standby personnel from process / maintenance / Contractor / Fire / Safety etc if any shall be mentioned in the additional requirement.
  - 4) अग्नि संकेत निलंबने ही सभी कार्य रोक दिए जाए। In case of fire alarm / siren, all work must immediately be stopped.
  - 5) अनुग्रहित का नवीनीकरण के लिए जारी करते सुनिश्चित करें कि परिस्थितियाँ कार्य जारी रखने के लिए संतोषजनक हैं, यदि परिस्थितियाँ बदली हुई हैं तो नवी अनुग्रहित/मीटिंग में सुधार करें। For renewal of work clearance, the issuer shall ensure that the conditions are satisfactory for the work to continue. If the conditions have changed, it may be necessary to issue a new permit or amend the existing permit.
  - 6) इस अनुग्रहित का नवीनीकरण/विस्तार अधिक से अधिक 7 दिनों तक कर सकते हैं।The clearance on the same permit can be renewed / extended up to a maximum of seven calendar days.
  - 7) यह अनुग्रहित कार्य स्थल पर सदैव उपलब्ध रहनी चाहिए।This permit must be available at work site at all times.
  - 8) कार्य पूर्ण होने पर अनुग्रहित को बंद करें।On completion of the work, the permit shall be closed.

**कार्य अनुमति को समाप्त करना/Closing of the Work Permit:**

प्राप्तकर्ता: कार्य पूर्ण किया/ रोक दिया/स्थल साफ किया/Receiver: Certified that the subject work has been completed / stopped and area cleared			जारीकर्ता: सत्यापित किया कि कार्य पूर्ण किया/ रोक दिया तथा स्थल साफ और दुर्घटनाहित है /Issuer: Verified that the job has been completed and area cleared and is safe from any hazard.		
दिनांक व समय Date & Time	नाम व पदनाम Name & Designation	हस्ताक्षर Signature	दिनांक व समय Date & Time	नाम व पदनाम Name & Designation	हस्ताक्षर Signature

REVIEWED BY	APPROVED BY	ISSUED BY
		
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

(कृपया अनुजमित जारीकर्ता को वापस करें/PLEASE RETURN PERMIT TO ISSUER)

REVIEWED BY	APPROVED BY	ISSUED BY
		
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

IMF/OPN/04  
ISSUE 1 ;Rev: 00HINDUSTAN PETROLEUM CORPORATION LIMITED  
VISAKHA VIJAYAWADA SECUNDERABAD PIPELINES

LOCATION:

WORK PERMIT  
FOR  
HOT WORK / ENTRY TO CONFINED SPACE

Sl. No. \_\_\_\_\_

WORK CLEARANCE FROM \_\_\_\_\_ hrs of date \_\_\_\_\_ TO \_\_\_\_\_ hrs of date \_\_\_\_\_ (valid for the shift unless renewed)

ISSUED TO : (DEPARTMENT/SECTION/CONTRACTOR) : \_\_\_\_\_

EXACT LOCATION OF WORK (AREA/UNIT/EQUIPMENT NO., etc) \_\_\_\_\_

DESCRIPTION OF WORK \_\_\_\_\_

THE FOLLOWING ITEMS SHALL BE CHECKED BEFORE ISSUING THE PERMIT  
(Tick mark in the appropriate box. Checklist items marked with asterisk (\*) shall be complied by receiver)

Sl. No.	Item	Done	Not Reqd.
A.	General Points		
1	Equipment / work Area Inspected		
2	Surrounding area checked, cleaned and covered		
	Sewers, manholes, CBD etc and hot surfaces nearby covered		
3	Considered hazard from other operations and concerned persons alerted		
4	Equipment /blinded/disconnected/closed/isolated/wedge opened		
5	Equipment properly drained and depressurized		
6	Equipment properly steamed / purged		
7	Equipment water flushed		
8	Iron sulfide removed / kept wet		
9	Equipment electrically isolated and tagged vide permit No.....		
10	Gas test : HC <sub>x</sub> = % LEL Toxic gas = ppm, O <sub>2</sub> = %		
11	Running water hose / Fire extinguisher provided Fire Water system available		
12*	Area cordoned off and precautionary tags / boards provided		

Sl. No.	Item	Done	Not Reqd.
B	For Hot work / Entry to confined Space		
1	Proper ventilation and lighting provided		
2	Proper means of exit / escape provided		
3	Standby personnel provided from process/maint/contractor/Fire/Safety dept.		
4	Checked fro oil and Gas trapped behind the lining in equipment		
5*	Shield provided against spark		
6*	Portable equipment/nozzles properly grounded		
7*	Standby persons provided for entry to confined space		
C	For vehicle Entry		
1	Spark Arrestor on the mobile equipment/vehicle provided		
D	For Excavation works		
1	Clearance obtained for excavation / road cutting/Dyke cutting from concerned depart.		

## Remarks:

- The activity has the following expected residual hazards (Tick the relevant items) Lack of Oxygen / H<sub>2</sub>S, Toxic Gases / Combustible gases / pyrophoric Iron / Corrosive Chemicals / Steam – condensate / Others \_\_\_\_\_
- Following PPE to be used in addition to standards PPE (Helmet, Safety Shoes, Hand gloves, Boiler suit) Face shield / Apron / Goggles / Dust Respirator / Fresh Air Mask / Life line / Safety Belt / Airline / Earmuff etc.
- Additional precaution if any: \_\_\_\_\_
- General instructions are overleaf

Issuer Name & Designation	Issuer Signature	Concurred by Name & Designation	Signature	Receiver Name & Designation	Receiver Signature

REVIEWED BY	APPROVED BY	ISSUED BY
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

**RECEIVER COPY / FIRE SECTION COPY / SAFETY COPY / LOCATION COPY**

CLEARANCE RENEWAL

**General Instructions:**

1. The work permit shall be filled up carefully and accurately in clear handwriting ensuring that complete information is provided in all the sections/ subsections and none of column is left blank. Sketches should be provided wherever possible to avoid miscommunication.
  2. Appropriate safe guards and required personnel protective equipment (PPEs) shall be determined by a careful analysis of the potential hazards and the operations to be performed prior to starting the work.
  3. In case of fire alarm / siren, all work must immediately be stopped.
  4. Only certified vehicle / engines and permitted type of electrical equipment and tools are allowed in operating areas.
  5. Welding machines should be located in non-hazardous and ventilated areas.
  6. No hot work should be permitted unless the explosive meter reading is zero.
  7. When a person is entering confined space, the receiver must keep minimum two standby – designated persons at the manhole or entry point.
  8. Before box up of any vessel manhole cover, ensure that no men / materials are inside the vessel.
  9. For renewal of work clearance, the issuer shall ensure that the conditions are satisfactory for the work to continue. If the conditions have changed, it may be necessary to issue a new permit or amend the existing permit.
  10. This clearance on the same permit can be renewed/extended upto a maximum of seven calendar days.
  11. This permit must be available at work site at all times.
  12. On completion of the work, the permit must be closed and kept as record.

**Closing of the Permit:**

Receiver: Certified that the subject work has been completed / stopped and area cleared		
Date & Time	Name & Designation	Signature

Concurred By		
Date & Time	Name & Designation	Signature

Issuer: Verified that the job has been completed and area cleared and is safe from any hazard.		
Date & Time	Name & Designation	Signature

REVIEWED BY	APPROVED BY	ISSUED BY
		
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

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हिन्दुस्तान पेट्रोलियम कार्पोरेशन लिमिटेड  
विशाख विजयवाडा सिकंदराबाद पाईपलाइन विशाखापटनम  
HINDUSTAN PETROLEUM CORPORATION LIMITED  
VISAKHA-VIJAYAWADA-SECUNDERABAD PIPELINE

थर्मोमीटर का कैलिब्रेशन सर्टिफिकेट/ CERTIFICATE FOR THERMOMETER CALIBRATION

कार्य स्थल/Location :

क्रम सं ख्या Sl. No	मास्टर थर्मोमीटर की रिडिंग Master Thermometer Reading	कैलिब्रेशन किए जारहे थर्मोमीटर की रिडिंग Thermometer Reading Under Calibration	अंतर Difference	अभियुक्ति (सुधारक) Remarks (Correction to be applied)

वर्दि सुधारक +/- 1°C से अधिक हो तो सेवा से निष्कासित करें।

If correction is > +/- 1°C, same to be discarded.

1. सर्टिफिकेट संख्या/CERTIFICATE NO. : \_\_\_\_\_
2. थर्मोमीटर की पहचान संख्या/THERMOMETER IDENTIFICATION NO. : \_\_\_\_\_
3. थर्मोमीटर की बनावट/THERMOMETER MAKE : \_\_\_\_\_
4. परिसीमा/RANGE : \_\_\_\_\_
5. सुधारक/CORRECTION TO BE APPLIED : \_\_\_\_\_

नोट: उपर्युक्त थर्मोमीटर को \_\_\_\_\_ के कैलिब्रेट किए हुए थर्मोमीटर संख्या \_\_\_\_\_ जो \_\_\_\_\_ बनावट का है, के साथ तुलना किया गया, जिसको नेशनल स्टैंडर्ड से अनुरोधण एवम कैलिब्रेशन की वैधता दिनांक \_\_\_\_\_ से \_\_\_\_\_ तक प्राप्त है। उपर्युक्त थर्मोमीटर उपयोग के लिए सही पाया गया।

NOTE: The above thermometer has been compared with calibrated thermometer No. \_\_\_\_\_ of \_\_\_\_\_ make received from \_\_\_\_\_ having traceability to National Standards with calibration validity from \_\_\_\_\_ to \_\_\_\_\_. Above thermometer is found fit for use.

अगले कैलिब्रेशन की तिथि/Next Calibration due on : \_\_\_\_\_

दिनांक/Date:

पाली

अधिकारी/Shift In-charge

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LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

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हिन्दुस्तान पेट्रोलियम कार्पोरेशन लिमिटेड

विशाख विजयवाडा सिंकंदराबाद पार्डप्लाईन विशाखापटनम

HINDUSTAN PETROLEUM CORPORATION LIMITED  
VISAKHA-VIJAYAWADA-SECUNDERABAD PIPELINE

## हाईड्रोमीटर का कैलिब्रेशन सर्टिफिकेट / CERTIFICATE FOR HYDROMETER CALIBRATION

कार्य स्थल / Location :

क्रम संख्या Sl. No	मास्टर हाईड्रोमीटर की रिडिंग Master Hydrometer Reading	कैलिब्रेशन किए जारहे हाईड्रोमीटर की रिडिंग Hydrometer Reading under Calibration	अंतर Difference	अभियुक्ति (सुधारक) Remarks (Correction to be applied)

वर्दि सुधारक +/- 0.001 ग्राम/मीली. से अधिक हो तो सेवा से निष्कासित करें

If correction is &gt; +/-0.001 gm/ml, same to be discarded.

1. सर्टिफिकेट संख्या/CERTIFICATE NO. :

2. हाईड्रोमीटर की पहचान संख्या/ HYDROMETER IDENTIFICATION NO. :

3. हाईड्रोमीटर का बनावट /HYDROMETER MAKE :

4. परिसीमा /RANGE :

5. सुधारक/CORRECTION TO BE APPLIED :

नोट: उपर्युक्त हाईड्रोमीटर को \_\_\_\_\_ के कैलिब्रेट किए हुए हाईड्रोमीटर

संख्या \_\_\_\_\_ जो \_\_\_\_\_ बनावट का है के साथ तुलना किया गया, जिसको नेशनल स्टेंडर्ड से अनुरेखण

एवम कैलिब्रेशन की वैधता दिनांक \_\_\_\_\_ से \_\_\_\_\_ तक प्राप्त है। उपर्युक्त हाईड्रोमीटर उपयोग के लिए सही

पाया गया।

NOTE : The above hydrometer has been compared with calibrated hydrometer No. \_\_\_\_\_ of \_\_\_\_\_ make received from \_\_\_\_\_ having traceability to National Standards with calibration validity from \_\_\_\_\_ to \_\_\_\_\_. Above hydrometer is found fit for use.

REVIEWED BY	APPROVED BY	ISSUED BY
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

अगले कैलिब्रेशन की तिथि/ Next Calibration due on :

दिनांक/Date:

पाली अधिकारी/Shift In-charge

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LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR



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हिन्दूस्तान पेटोलियम कापरिशन लिमिटेड

**विशाख विजयाडा सिकंदराबाद पाईपलाईन विशाखापट्टनम  
HINDUSTAN PETROLEUM CORPORATION LIMITED  
VIJAYAWADA-SECUNDERABAD PIPELINE**

कार्यस्थल/LOCATION:

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LOCATION INCHARGE	Maintenance INCHARGE		IMS COORDINATOR



Rev: 00

HINDUSTAN PETROLEUM CORPORATION LIMITED  
PERMIT FOR WORKING AT HEIGHT

Sl. No. \_\_\_\_\_

**LOCATION:**

VALID FROM \_\_\_\_\_ TO \_\_\_\_\_

PERMISSION IS GRANTED TO : SECTION / CONTRACTOR \_\_\_\_\_ NAME \_\_\_\_\_

NATURE OF WORK \_\_\_\_\_

LOCATION OF WORK \_\_\_\_\_

IF HOT WORK IN CONFINED SPACE IS AT ELEVATION A SEPARATE HOT WORK PERMIT SHOULD BE ISSUED FOR IT ALONG WITH THIS PERMIT. THE FOLLOWING ITEMS SHALL BE CHECKED BEFORE ISSUING THIS PERMIT.

Sl. No.	Item	Done	Not Reqd.
1	Equipment / work area inspected / area kept clear		
2	Surrounding area checked / cleaned up		
3	Sewers, man holes, drains etc and hot surfaces nearby covered		
4	Scaffolds / Ladders checked by concern job supervisors		
5	Ensure all material carried up at elevation are fall protected		
6	ISI marked safety belts & helmets are provided for contractor workers		
7	Contractor certified that his crew is fit for working at height		
8	Instructions are given to workmen to tie the life lines of safety belt properly		
9	Proper illumination provided		
10	Adequate working platform & space is provided		

(PLEASE PUT (V) MARK IN THE APPROPRIATE BOX)

Sl. No.	Item	Done	Not Reqd.
11	Proper means of exit provided		
12	Precautionary tags / boards provided		
13	Portable electrical equipment properly earthed and provided with ELCB switches.		
14	Standby contractor personnel provided for supervision		
15	Workers are trained in use of safety belts		
16	Operations in -charge kept informed		
17	Area cordoned off		
18	Precautions against public traffic taken		
19	Weather conditions are favourable for elevation work		
20	Additional safety measures double life lines safety nets roof ladder / crawl link board (in case working on fragile roof)		

Permit issued by

Name \_\_\_\_\_

Permit concurred by

Name \_\_\_\_\_

Permit received by

Name \_\_\_\_\_

Signature of issuer \_\_\_\_\_

Signature of issuer \_\_\_\_\_

Signature of Receiver \_\_\_\_\_

Telephone Extn \_\_\_\_\_

Telephone Extn \_\_\_\_\_

Telephone Extn \_\_\_\_\_

REVIEWED BY	APPROVED BY	ISSUED BY
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

(Note: Pink colour – First Copy – Contractor copy, Blue colour – 2nd copy – Location copy, White Colour – 3rd Copy – Safety inspection copy)

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**SPECIAL INSTRUCTIONS**

1. The permit is applicable to all jobs to be carried out at elevation more than 3 meters, like painting, scrapping, cleaning instrument checks, working on scaffolds etc.
2. Check all personal protective equipment required such as: Safety helmet/Gloves/Goggles/Proper foot wear/Boiler suit/Dust respirator/Life line/Safety belts are provided.
3. In case of fire alarm, all work must be stopped. Running fire water must be closed. All personnel must leave work site and proceed to designated areas.
4. In case of liquid/gas release, stop work and immediately advise concerned operation personnel.
5. Only certified vehicles/engines and permitted type of electrical equipment and tools are allowed in operation areas.
6. Ensure proper grounding/earthing/insulation of cables.
7. If the job involves working on equipment, which are in service concerned person should be kept informed.
8. Contractor must give assurance that all his worker are physically and psychologically fit for working at elevation.
9. Work at heights should not be permitted in extreme weather conditions such as high wind, heavy rains, storms etc.
10. This permit should be available at the work site at all times.
11. Additional remarks, if any: \_\_\_\_\_

**PERMIT RENEWAL RECORD**

Extension Date	Time	Signature of Issuer	Concurred By	Signature of Receiver

Condition for job completion

Time \_\_\_\_\_ a.m / p.m      Date \_\_\_\_\_

Work completed / Stopped at \_\_\_\_\_

Scaffolding pipes and other materials removed and area house keeping done \_\_\_\_\_

By \_\_\_\_\_      By \_\_\_\_\_      By \_\_\_\_\_

REVIEWED BY	APPROVED BY	ISSUED BY
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

Name of Issuer

Concurred By

Name of Receiver

REVIEWED BY	APPROVED BY	ISSUED BY
		
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR



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ISSUE

HINDUSTAN PETROLEUM CORPORATION LIMITED  
VISAKHA VIJAYAWADA SECUNDERABAD PIPELINES

LOCATION:

Sl. No.

**Electrical Isolation / Energisation Permit**

**Section – A : Isolation Permit.**

**Request for Isolation** Date: \_\_\_\_\_ Time: \_\_\_\_\_

Department / Section / Area issuing the permit \_\_\_\_\_

Equipment number to be isolated : \_\_\_\_\_

Name of the equipment / circuit to be isolated \_\_\_\_\_

The above-mentioned equipment / circuit shall be de-energized and isolated from all live conductors to carry out the maintenance work by \_\_\_\_\_ section / for operational requirement.

Issuer Name

Designation

Signature

**Certificate of Isolation:**

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Certified that Equipment / Circuit no. \_\_\_\_\_ of \_\_\_\_\_ plant has been electrically isolated by switches / isolators / links / fuses (tick as applicable) and the danger tag is put on the supply panel.

Actions in respect of electrical isolation have been recorded in the electrical shift logbook.

Issuer Name

Designation

Signature

**RECEIVER'S COPY / LOCATION COPY**

REVIEWED BY	APPROVED BY	ISSUED BY
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR

Section - B      Energisation Permit:      Sl. No. \_\_\_\_\_

Request for energisation

Department / Section / Area issuing the permit \_\_\_\_\_

Equipment number to be energized \_\_\_\_\_

Name of the equipment / circuit to be energized \_\_\_\_\_

Work on the above mention equipment / circuit has been completed and all the applicable permits closed. This equipment / circuit may be energized.

\_\_\_\_\_  
Issuer Name      Designation      Signature

Certificate of Energisation:      Date: \_\_\_\_\_ Time: \_\_\_\_\_

Certified that Equipment\*/ Circuit no. \_\_\_\_\_ of \_\_\_\_\_ plant has been electrically energized and the danger tag removed form the supply panel. This is also recorded in the electrical shift log book.

\_\_\_\_\_  
Name of Authorized person      Designation      Signature

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LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR



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Dt.24.10.2020

## Critical Behaviour Checklist for Personal Protective Equipment Observation

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VIJAYAWADA-SECUNDERABAD PIPELINE

कार्यस्थल/Location:

REVIEWED BY	APPROVED BY	ISSUED BY
		
LOCATION INCHARGE	Maintenance Incharge	IMS COORDINATOR

IMF/OMP/03  
ISSU



नमुना पत्र : Sample Label  
विविएसपीएल/VVSPL

कार्यस्थल/Location:M B PATNAM

उत्पाद/PRODUCT \_\_\_\_\_ नमुना संख्या/SAMPLE No. \_\_\_\_\_

दिनांक/ DATE \_\_\_\_\_ समय/TIME (HRS.) \_\_\_\_\_

साइक्ल/बैच संख्या/:CYCLE/BATCH No. \_\_\_\_\_

श्रोत: Source: \_\_\_\_\_

बैच का अग्र/मध्य/अंत/ FRONT/MIDDLE-END OF BATCH/INTERFACE

टैंक संख्या/TANK No. \_\_\_\_\_

अन्य/Any other: \_\_\_\_\_

घनत्व/Density @15 Degree C= \_\_\_\_\_

पात्री अधिकारी /SHIFT IN-CHARGE \_\_\_\_\_

REVIEWED BY	APPROVED BY	ISSUED BY
LOCATION INCHARGE	MAINTENANCE INCHARGE	IMS COORDINATOR