

Uniform Policies/ Guidelines/Operating Procedures for Management of Dispensation / Issue of High Speed Diesel (HSD) for TFM (Total Fuel Management) Arrangements

1.0 Preamble

- 1.1 HSD is a high value item based on consumption and is a major component of operational cost for production of Coal. Even a small percentage of pilferage results in loss of high financial value. Hence, there is a need for uniform Policies /Guidelines/Operating Procedures for management of HSD across Coal India Ltd. Accordingly, the following Policies /Guidelines/Operating Procedures have been formulated for implementation across Coal India Ltd.
- 1.2 HSD is received from respective PSU Oil Marketing Companies (OMCs) at Mines / Projects / Areas / HQs of Subsidiary Companies and NEC in Bulk Petroleum Lorries of various capacities [12,000 / 18,000 / 20,000 / 29,000 liters etc.] which are called as Tank Trucks (TTs) in industry parlance. OMCs are responsible for installation of Underground Storage Tanks, Dispensing Units and Automation System for HSD Management.
- 1.3 In some places, subsidiary companies have entered into Total Fuel management (TFM) agreements with PSU Oil Marketing Companies (OMCs). However, there are instances where there is no TFM agreement.
- 1.4 Under TFM Arrangements, the OMCs take responsibility for transportation and storage of materials under their own custody and supervision. HSD is supplied by OMCs to subsidiary companies on ex-Depot (place of Diesel Dispensing Unit of mine/project) basis from the storage tanks at these sites. These units are treated as independent sales points where the OMCs maintain inventory. OMCs are responsible for quality of product upto the delivery nozzle and paid for the quantity actually delivered on each day.
- 1.5 The forthcoming guidelines are related to TFM supplies.

2.0 Designated Officials

2.1 Area Nodal Officer

- 2.1.1 There shall be an Area Nodal Officer, who will be overall in-charge to look after all matters dealing with management of HSD at the Area level (including all mines/projects of the Area) in line with the uniform Policies /Guidelines/Operating Procedures issued herein under.
- 2.1.2 The Area Nodal Officer shall be a senior executive of Excavation, E&M, Mining or MM discipline of minimum E-6 level, duly designated by the Area General Manager. The Area Nodal Officer shall report to the Area General Manager.

2.2 Pump Station Nodal Officer

- 2.2.1 An officer should be designated at each Pump Station of project / mine by the Project Officer / Area General Manager, as the case may be, who shall be a nodal point for smooth operation of TFM and other related matters concerning HSD Management in the respective Pump Station of project / mine. He shall be known as the Pump Station Nodal Officer and shall report to the Project Officer.
- 2.2.2 In case the Pump Station is within the premises of Regional Stores of the Area, the Pump Station Nodal Officer shall be of MM Discipline. In case the Pump Station is not within the Regional Stores premises, an officer of E&M, Mining or Excavation discipline, as the case may be, shall be the Pump Station Nodal Officer.
- 2.2.3 Only one person shall be the Pump Station Nodal Officer for one Pump Station.
- 2.2.4 The Pump Station Nodal Officer and the consumer / user should not be the same person.
- 2.2.5 The Pump Station Nodal Officer should be transferred out periodically, but not later than 3 years by the Project Officer / Area GM.
- 2.2.6 In the absence of Pump Station Nodal Officer of Pump Station, alternate Officer should be nominated by the Project Officer / Area GM to act as the Pump Station Nodal Officer.

2.3 OMC Nodal Officer

- 2.3.1 A permanent employee of the OMC of appropriate rank should be designated as the Nodal Officer for each Pump Station of project / mine by the respective OMC, who shall be a nodal point for smooth operation of TFM on behalf of the OMC. He shall be known as the OMC Nodal Officer.
- 2.3.2 In the absence of OMC Nodal Officer, alternate Officer should be nominated by the OMC to act as the OMC Nodal Officer.

2.4 Designated Store Keeper

- 2.4.1 A store Keeper / clerk of the Subsidiary Company shall be nominated as Designated Store Keeper for each Pump Station by Project Officer / Area General Manager.

2.5 Diesel Bowers In-Charge

- 2.5.1 An officer from Mining / E&M / Excavation cadre should be nominated by the Project Officer as in-charge of all Diesel Bowers of the Project / Mine.

3.0 **Estimated / Projected off-take and Indenting / Projection**

- 3.1 Estimated / Projected off-take should be communicated to the OMCs on monthly basis indicating approximate daily consumption of HSD. The projection for the next month should be given in the beginning of the preceding month.
- 3.2 Indent / projection for HSD to be procured from the OMC is to be raised by the Pump Station Nodal Officer. The Indent/projection for HSD shall be approved by Project Officer / Mine Manager in case of Project / Mine and Area GM or his authorized representative in case of Area HQ.
- 3.3 TFM agreements should preferably be negotiated with the provision of credit facility for maximum duration (not less than 10 days). However, in case advance is to be paid as per agreement, a standby LC may be established for the purpose, for an amount not exceeding 3 days consumption value.

4.0 **Receipt of HSD, Storage & Reconciliation of Stock:**

- 4.1 The responsibility of correct decantation of Bulk Petroleum Lorries / TTs with respect to quantity & quality of HSD, receipt & storage of HSD in the underground storage tanks and reconciliation of stock, shall lie with the OMCs who are the custodian of inventory. This should be clearly spelt out in the TFM Agreement with the OMC. The Pump Station Nodal Officer should be kept informed of the receipt and decantation of HSD by the OMC Nodal Officer.
- 4.2 OMCs shall mandatorily install an Automation System at the decantation points for receipt and storage activity. Automation system provides for installation of Automatic Tank Level Gauge (ATG) inside the underground storage tanks to monitor fuel inventory on continuous basis and to report inventory data and DDU / Flowmeter issue data to automation controller on real time basis for data consolidation / generation of reports, recording of events and remote access etc. The system is capable of measuring fuel level, water level, mass density and temperature.
- 4.3 Since OMC is the custodian of inventory and also in control of the DDU premises being 'the Lessee' of the same, the responsibility of Safety & Security of the DDU premises shall lie with them. The OMC shall also be responsible for all statutory liabilities related to operation of the TFM Agreement during the currency of the Agreement. Accordingly, the respective agreements with OMCs should contain provisions indemnifying the Coal Companies from any loss, damage, injury or any compensation thereof, arising out of operation of TFM Agreement.
- 4.4 The TT registration number and time of entry and exit are to be noted in a Register maintained at Security Check post of the Pump Station as per the enclosed format - **Annexure-A**. Record of entry and exit of every vehicle entering the Pump Station premises is to be maintained in this format.

- 4.5 Joint Sampling of the product in each storage tank should be done along with the representatives (permanent employee) of the OMCs twice a year following proper protocol laid down by the respective OMC. The reports should be maintained properly in a file and any quality deviation / abnormality should be reported to Subsidiary HQ for necessary action.

5.0 **Pump Administration:**

- 5.1 There should be at least one representative of the OMC deployed at each HSD Pump Station premises who should be available throughout the working hours of the Pump.
- 5.2 Each HSD pump station should prominently display its salient features like name of unit, authenticated copy of relevant storage license issued by PESO along with the approved plan, extract of Petroleum Rules, 2002, storage license number, validity date, date of stamping by the Weights & Measurement Dept. and next due date, capacity of underground storage tanks and other statutory and safety information.
- 5.3 Scheduled opening / closing times of the HSD Pump Station should also be prominently displayed. Prior written permission of the Project Officer should be obtained for operating the HSD Pump Station beyond scheduled working hours.
- 5.4 It will be the responsibility of Designated Store Keeper of the pumping station to ensure the safe custody of originals of the licenses issued by PESO and other documents and to keep track of renewals. Stamping by Weights & Measurement Dept. of respective State government should be ensured by OMC and renewals done in time for all installed DDU's irrespective of usage status. Calibration Charts of each ground tank duly certified by the OMC are also to be kept in the custody of the Designated Store Keeper.
- 5.5 Calibration of Totalizer and Flow-meter of static pump station (DDU) / mobile bowsers should be done periodically as per stipulated statutory requirements of the Dept. of Weights & Measurements by Pump Station Nodal Officer and respective Section-I/Cs. The same should be verified periodically using measuring cans by the Area Nodal Officer, and any deviations should be recorded and reported to the Project Officer and Area GM.
- 5.6 At the time of opening and closing of the Pump Station, Progressive Meter Reading (PMR) or Totalizer Reading / Flow meter reading of all DDU's should be taken and recorded in the Register in the format enclosed (**Annexure-B**). The register should be signed by the Pump Station Nodal Officer and duly countersigned by the OMC on daily basis.

- 5.7 A 'DDU Issue Register' should be maintained with all requisite entries as per format provided in **Annexure-C** for each DDU in the Pump Station. The same should also be kept in electronic form.
- 5.8 All DDUs should be installed with Progressive Meter (Totalizer) / Flow meters, irrespective of usage status.
- 5.9 It should be ensured by the OMC Nodal Officer / Representative that the inlet pipes of underground storage tanks, dip rod holes, dispensing nozzles and/or pump starting switches are suitably sealed or locked all the time to prevent unauthorized access to pumps or tanks. This should also be periodically verified by the Pump Station Nodal Officer.
- 5.10 Maintenance of the underground tank including necessary periodic cleaning / desilting and recalibration shall be the responsibility of the OMC.

6.0 **Dispensation / Issue of HSD:**

- 6.1 The responsibility of the Pump Station Nodal Officer primarily begins with issue of HSD from the Diesel Dispensing Unit /Flow Meter (DDU) to the concerned equipment/bowsers/vehicles.
- 6.2 The OMC shall be responsible for quality of product delivered through the nozzle. Each day, before the start of issue of HSD, the quality checking (density checking using ASTM Table) of HSD being issued from the delivery nozzle shall be done jointly by the representative of OMC and Pump Station Nodal Officer. This exercise should be repeated every time a different storage tank is being connected to the DDU or after every decantation of TT during the day. The quality checks should be filled out in a separate Register as per format provided in **Annexure-B**.
- 6.3 To ascertain correct quantity of HSD being dispensed from each DDU, 5/10/20 liter containers and/or Overhead Proving Tank, duly calibrated by Weight & Measurement Dept., would be filled and verification shall be done jointly by the representative of OMC and Pump Station Nodal Officer at least once daily.
- 6.4 OMC shall mandatorily install and maintain RFID based Automated Fuel Dispensing System. In this system, the nozzle of the Pump / DDU (issuing end) is fitted with RFID Reader and RFID ring is fitted in the mouth of fuel tank (receiving end) of each vehicle/equipment/bowser. This ensures automatic identification and authorisation. Thus, the system ensures that fuel is given only to the authorised vehicle/equipment/bowser. If the RFIDs are tampered with, the same should be immediately informed to the Project Officer/Area GM and corrective action taken.

6.5 **Documentation:**

- 6.5.1 An 'Issue Register' (**Annexure-C**) should be maintained with all requisite entries.

- 6.5.2 Store HSD pump section will issue HSD against indents from concerned authorized executives only.
- 6.5.3 Progressive Meter Reader (PMR) reading should be recorded before and after each issue of HSD in the Issue Register.
- 6.5.4 Receiver's signature should be obtained on the Issue Register.
- 6.5.5 Bulk issue to outside agencies should be avoided. However, in case of exigency, the issue should be done with the approval of Competent Authority and should be properly documented in Issue Register. Receiver's signature should be obtained on the Issue Register.
- 6.6 Any abnormality in dispensing meter functioning should be immediately reported to both OMC Nodal Officer and Pump Station Nodal Officer and rectified. Issue of HSD from that DDU shall be stopped till rectification and re-calibration / stamping by Weights & Measures Department.
- 6.7 Initial reading of Totalizer of DDU at the start of issue of HSD and closing reading of the Totalizer of DDU at the end of issue of HSD for the day should be recorded daily in the presence of the OMC representative as per format provided in **Annexure-B** by the Pump Station Nodal Officer and duly countersigned by the OMC. The transaction-wise and equipment-wise issue of HSD based on initial and final readings of flow meter should be recorded daily in the presence of the OMC representative as per format provided in **Annexure-C** by the Issue Clerk and also signed by the Receiver. The Record should be reconciled with the readings captured in the CCTV Camera.
- 6.8 HSD to HEMM and light vehicles should be issued from separately earmarked pumps as far as practicable.
- 6.9 HSD issued to Bowsers should be treated as out of book stock of CIL and not the OMC.
- 6.10 Records of daily opening, issued quantity and closing stock of mobile dispensing diesel bowsers should also be maintained in a register (as per enclosed format – **Annexure-D**) by the user department.
- 6.11 Representative of Pump Station Nodal Officer should oversee issue of HSD and ensure locking and sealing arrangements of HEMM after dispensation. He should also ensure that locks / seals on the fuel tanks of HEMMs from previous issue have not been tampered with, prior to filling the HSD in the equipment. In case of any tampering, the same should be brought to the notice of all concerned by the Representative of Pump Station Nodal Officer / HEMM Operator. In such cases, HSD should be dispensed only with the approval of Project Officer.

6.12 The Area Nodal Officer for Management of HSD of the Area may also conduct monthly checks of the above activities including documentation.

6.13 Hour meter readings of the equipment should be recorded at the time of filling.

7.0 **HSD Browsers:**

7.1 HSD Browsers, apart from having RFID Ring to receive HSD from the DDU, should also be fitted with RFID Reader in the Nozzle to dispense HSD. The equipment which receive HSD from browsers shall be fitted with RFIDs Rings. OMCs may be requested to do the installation of RFID Readers on the dispensing Nozzles of Browsers and RFID Rings on the mouth of fuel tanks of vehicles and equipment receiving HSD from browser also, as these readers should be mutually compatible. If the RFIDs are tampered with, the same should be immediately informed to the Project Officer/Area GM and corrective action taken.

7.2 Each Bowser should also have GPS based Vehicle Tracking System (VTS) for monitoring of its movement within the geo-fencing area allocated to the Bowser within the Mine. Diesel Bowser In-charge shall be responsible for such monitoring, who will be receiving alerts generated for route violations and will seek explanation for the same from the Bowser Operator as well as take necessary action.

7.3 A separate Transaction Register as per enclosed format (**Annexure-E**) should be maintained for each Bowser by the user department with date-wise entries of opening stock, receipts & issues to each equipment and closing stock. The Register should be scrutinized by the In-charge of concerned HEMM/ Equipment operating Department and reconciled fortnightly with the Log Book of each equipment for ensuring proper usage of HSD, so that pilferage of HSD during filling up of HEMM is avoided.

7.4 Flow meters and Progressive Meters (Totalizers) should be functional in all Browsers operating in the field.

7.5 All flow meters and progressive meters (totalizers) should be calibrated periodically by Weights and Measures / Relevant Authorities.

7.6 Calibration and stamping of Dip Rods of each compartment of the Bowser should be done periodically by Weights and Measures / relevant Authority.

7.7 A security guard should be deputed along with mobile HSD browser during dispensation of diesel to various diesel operated equipment in the field.

7.8 As far as possible, no stock should be left overnight in Browsers.

- 7.9 The variation between the book balance and physical balance should be examined, analyzed, recorded on daily basis and should be signed by the custodian i.e. Diesel Bowser In-charge and also the Pump Station Nodal Officer. Any abnormalities should be reported to the Project Officer, who shall get it examined by a duly constituted committee of the Project/Mines and the matter escalated to the GM Level for resolution. In case, involvement of Subsidiary Company employees is indicated, the matter should also be referred to the Vigilance Department.
- 7.10 All Bowsers should be parked in designated secured locations only like DDUs, Workshops, etc. These locations should be under CCTV surveillance.

8.0 **Equipment Administration:**

- 8.1 Fuel gauge, Strainers and Caps along with anti-pilferage locking arrangements should be fitted in all the diesel operated equipment.
- 8.2 HSD tank of equipment should be locked and sealed properly. The keys of these sealed locks of HSD tanks should be in the custody of Workshop in-charge / Section in-charge / Project or Mine Nodal Officer, as the case may be.
- 8.3 Fuel Level sensors should be fitted in every HEMM and vehicle to monitor fuel level and generate alert on real-time basis in case of sudden dip in fuel level. This should be monitored by the user department / Project officer and appropriate corrective measures should be taken immediately. In case of breakdown of fuel level sensors, the matter should be taken up on priority and breakdown should be set right.
- 8.4 Hour-meter should be fitted in every HEMM and its operation should be ensured. Tampering of Hour-meter should be looked into seriously and corrective measures taken on priority.
- 8.5 Transaction details of all equipment running on HSD are to be maintained by the HEMM / Equipment operating department in the format enclosed (**Annexure-F**). This should be checked and reconciled fortnightly by the concerned controlling officer of the HEMM / Equipment operating department. Entry of all issues of HSD should also be endorsed in the respective equipment log book by the authorized in-charge of the concerned department.
- 8.6 A Committee consisting of Excavation, E&M and Mining disciplines, will be constituted by the Project officer, to determine and fix periodically average hourly consumption of diesel in different types of HEMM and submit the report to the Project Officer and copy to Area GM, Area Manager (Excavation) and GM (Excavation), Subsidiary HQ.
- 8.7 An officer of the user department should be duly authorized by the Project Officer for indenting / requisitioning of HSD for the equipment / bowser. Working hours

of the particular equipment since its last filling of HSD, should be considered while deciding the quantity to be requisitioned for that equipment.

- 8.8 An Excavation Engineer, authorized by the Project officer, will examine and analyze the daily consumption of HSD by each HEMM, based on the quantity of HSD issued, working hours, and compare it with the average hourly consumption fixed by the above Committee and CMPDIL norms and submit the report to Engineer-In-Charges, Area Manager (Excavation) and Project Officer.
- 8.9 As an outcome of the above analysis, any variation from average hourly consumption should be recorded as Diesel Shortage Incident by the authorized Excavation Engineer and reported to Project Officer as per format provided in **Annexure-G** for further enquiry. Based on the outcome of the enquiry, each unexplained incident should be reported as theft and needful action should be taken including filing of FIR. Such unexplained quantities recorded as theft should be deducted from consumption. Monthly summary of all such cases should be recorded and intimated to the Area GM by the Project Officer as per format provided in **Annexure-H**.

9.0 **Preventive Measures:**

9.1 **Security Measures at Mine:**

- 9.1.1 Project/Area shall ensure deployment of Security Personnel in all three shifts at
 - 9.1.1.1 HSD filling points / HSD pump premises.
 - 9.1.1.2 Parking area of HEMM and HSD Bowsers in workshop / field.
- 9.1.2 In addition to static deployment, patrolling by security department should also be done at vital points of the mine in all 3 shifts to prevent any theft.

9.2 **Precautionary measures for avoidance of theft / pilferage of HSD:**

- 9.2.1 Diesel issue from Pump, etc. should be done as per laid down procedures.
- 9.2.2 Leakage of diesel, if any, should be checked and arrested.
- 9.2.3 All installed meters including fuel level meters / hour meters etc. should be functional on all HEMMs and light vehicles.
- 9.2.4 Diesel in the tanks of long breakdown HEMMs should be monitored.
- 9.2.5 Filling pipes of diesel tanks of all HEMMs / Equipment are to be fitted with anti-theft devices, strainers (made with unbreakable grade metal) and

locking arrangements, which shall be checked periodically by Section-in-Charge. Any deviation / tampering is to be reported to Project Officer so as to ensure corrective measures.

9.3 **CCTV Surveillance:**

- 9.3.1 CCTV camera(s) must be installed at the Pump Station and placed in such a manner so as to capture / record the flow meter / PMR (totalizer) reading and equipment / vehicle ID during the process of issue of HSD to HEMM, Bowers and light vehicles along with movement of dispensing nozzle. The CCTV cameras must be in operation round the clock and even in case of power failure it should be ensured that there is suitable power back-up for uninterrupted power supply.
- 9.3.2 CCTV cameras should also be installed at parking areas and other suitable / feasible locations in the mine for continuous monitoring and recording.
- 9.3.3 The Working / Break-down status of CCTVs should be maintained in a check-list form in a controlled register as per the format enclosed (**Annexure-I**) by the Security Officer or the authorized officer for the purpose. The breakdown status of the CCTVs should be reported to Project / Mine Manager on daily basis and Area GM on monthly basis.
- 9.3.4 The break-down CCTVs should be corrected immediately within 24 hours / 48 hours, as per the provisions of SOP on IT Initiatives dated 29.03.2018 issued by CIL Vigilance, and amended vide letter dated 29.04.2021 issued by E&T Department. In case of breakdown, alternative arrangement must be in place for surveillance. AMC should be done for all CCTVs. All the CCTVs should be integrated with the Control Rooms at mine level, project level, area level and subsidiary level. Real time feed of CCTV cameras should be monitored round the clock at the control rooms for taking immediate necessary action whenever required. CCTV footage of each day should be examined by the Nodal Officer and reconciled with the records. The duration of preservation of CCTV footage should be as per the provisions of the above referred SOP of E&T Department.

9.4 **Oversight Mechanism:**

- 9.4.1 Project Officer will constitute a committee comprising officers from the Project / Mine, which should include Officers from Excavation, E&M, Finance and Security Departments, for conducting quarterly checks of the HSD Dispensing Unit and Bowers. The Committee should scrutinize all records of the HSD Dispensing Units / Bowers, verify processes & their implementation and conduct requisite tests as felt necessary. Record of such quarterly checks are to be maintained at project / store level (**Annexure-J & K**). A report summarizing the findings of each quarterly check should be submitted by the committee

to the Project officer and the Area GM with copies to Area Manager (Excavation) and GM (Excavation), Subsidiary HQ; and to Staff Officers (MM) for DDUs under their Administrative control.

9.4.2 An Area Level Committee comprising officers from MM, Excavation, E&M, Finance and Security Departments will be constituted by Area GM to conduct surprise checks of the HSD Dispensing Stations and Browsers, at least once in a quarter in each Mine / Project. A report (**Annexure-J & K**) summarizing the findings of each surprise check should be submitted by the committee to the Area GM with copies to Project Officer, Area Manager (Excavation) and GM (Excavation), Subsidiary HQ; and to Staff Officers (MM) for DDUs under their Administrative control.

9.5 Each incident of shortage of HSD from the fuel tank of any equipment / vehicle or bowser is to be recorded in the equipment / vehicle or bowser logbook and also in the Diesel Shortage Incident Register (**Annexure-G**) to be maintained by each Sectional I/C; and should be reported immediately to Project Officer for further enquiry. Based on the outcome of the enquiry, each unexplained incident should be reported as theft and needful action should be taken including filing of FIR. Such unexplained quantities recorded as theft should be deducted from consumption. Monthly summary of all such cases should be recorded and intimated to the Area GM by the Project Officer as per format provided in **Annexure-H**.

9.6 In case of recovery of diesel, it can be reused taking it into stock of the Coal Company after checking its quality in the presence of the Committee constituted for Quarterly Checks at Project / Mine level.

9.7 All Officers and Staff involved in any job related to management of HSD such as receipt, storage / pump administration / dispensing / issue etc. should be transferred out periodically but not later than three years by the project officer.

9.8 All personnel of Subsidiary Company involved with HSD Management should be permanent employees.

9.9 **Training and Capacity building:**

9.9.1 All the officers and staffs engaged in HSD management should be given induction / orientation training of the same with the assistance of OMCs. Apart from officers and staffs posted for HSD management, a pool of skilled manpower in HSD management may be created by imparting such training to other personnel as well.

10.0 **Others :**

10.1 These procedures and guidelines are by no means exhaustive but indicative in nature. To cater to their specific requirements, Projects / Areas / Dispensing Units / Stores may incorporate additional practices / operating procedures, in

conformity with these uniform guidelines, with competent approval, in order to ensure a safe, smooth and transparent receipt, storage and dispensation of HSD. The copies of such additional instructions shall be sent for review at subsidiary level and to be forwarded to CIL, HQ periodically.

- 10.2 These policies / guidelines / operating procedures should be reviewed periodically in consultation with various stake holders including OMCs so as to incorporate technological advancements / upgradations, issues relating to safety and other procedural / systemic improvements etc.
- 10.3 The success of these Policies / guidelines is hugely dependent on effective implementation and close supervision. The roles and responsibilities for implementation and supervision for various levels of hierarchy, as enumerated in this document, should be strictly adhered to in letter and spirit and accountability for lapses should be fixed.
- 10.4 Identification of perpetual offenders (rogue machines and rouge operators) should be undertaken through diligent analysis of available data of daily consumption of each HEMM, its comparison with the average hourly consumption and other norms. Appropriate corrective measures should be promptly taken to prevent theft / pilferage.
- 10.5 Data available through Truck Payload Monitoring System (TPMS), where available, should also be utilized for the above purpose.
- 10.6 All available data in respect of Receipt, Storage, reconciliation of Stock and Dispensation / issue of HSD should be integrated with ERP-SAP system of CIL. The data from different sources (field, TPMS, ERP-SAP etc.) should be diligently analyzed on weekly basis at Project/Sub-Area Level, fortnightly basis at Area level, monthly basis at Subsidiary level and quarterly basis at CIL level, to generate alerts & reports and identify the loopholes, and to take remedial measures including policy changes, if required, to plug them
- 10.7 All measuring instruments / meters / gauges / gadgets etc. should be in proper working conditions duly calibrated and having valid certification. This should be ensured by concerned Sectional in-charge and verified by Area Nodal Officer.
- 10.8 End-to-End HSD Management solution based on IoT and AI should be introduced at all places for effective management of HSD at every stage.
- 10.9 OMCs should be advised for randomized allocation of TTs for transportation so as to minimize / eliminate possibility of connivance between all concerned.
- 10.10 Outsourcing of TFM operation by OMCs should be discouraged to ensure direct involvement and monitoring by OMC personnel. In case OMCs as a policy,

operate TFMs by outsourcing, they (OMC) should obtain prior consent from the concerned Coal Company. Thereafter, the resultant agreement between the OMC and the TFM operator should be shared with the Coal Company.

- 10.11 The complaints about pilferage/ theft of HSD should be promptly and properly enquired into and appropriate follow up action inter-alia including registration of FIR should be taken based on the findings. The action taken on these complaints should be reviewed monthly by the Project Officer and the information about action taken should be sent to the Area GM and the concerned Director (Technical) of the Subsidiary in the first week of the subsequent month in the format **(Annexure-L)**. In case, involvement of employees is indicated, the matter should be referred to Vigilance. Vigilance Division should play a proactive role by conducting surprise checks and developing source information as a preventive vigilance measure.
- 10.12 An Internal Audit of all records pertaining to Diesel Management of each project / mine shall be conducted half-yearly and shortcomings should be properly reported to Project officer and Area General Manager. This should be ensured by Area Finance Manager in association with Area Materials Manager. Needful compliance of Audit observations shall be ensured by Project Officer / Area General Manager.

Annexure-A

Format for Register at Security Check Post / Entry-Exit Point of Pump Premises

Month of **** , 20**

Sl. No.	Date	Type of Vehicle (TT / User / Other)	Vehicle Reg. No.	Purpose of Visit	In case of TT of HSD / Motor Spirit			In Time	Name of Driver (for TT only)	Signature of Driver (for TT only)	Signature of Security Personnel	Out Time	Signature of Driver (for TT only)	Signature of Security Personnel
					OMC Name	Invoice No.	Quantity (in KL)							

Annexure-B

Format for Daily Quality Check & Quantity Record

Date:
Page No.

Pump Station Name:

<u>DDU ID</u>	<u>Opening PMR Reading</u>	<u>Closing PMR Reading</u>	<u>Total Issue</u>
1			
2			
.			
.			
TOTAL			

Signature of Pump Station Nodal Officer

Signature of OMC Representative

Quality Check (Density) Details:

<u>Storage Tank No.</u>	<u>Time</u>	<u>Standard Density at 15 °C</u>	<u>Density Reading</u>	<u>Temp.</u>	<u>Corresponding Chart Density</u>	<u>Diff.</u>	<u>Signature of OMC Representative</u>	<u>Signature of Pump Station Nodal Officer</u>
1								
2								
.								
.								
.								

Note:

- The quality check exercise should be repeated every time a different storage tank is being connected to the DDU or after every decantation of TT during the day.

Annexure-C

Format for Register for Issue of HSD from DDU

Date:
Page No.

DDU ID:

Sl. No.	Tank No.	Transaction ID	Equipment Type	Equipment Sl. No.	Hour Meter Reading	Requisition Slip No	Qty Requisitioned (in Ltr)	Flow Meter Reading	PMR Reading		Qty Issued (in Ltr)	Receiver's Name	Signature of Receiver	Name of Issue Clerk	Signature of Issue Clerk	Remarks
									Before Filling	After Filling						
1																
2																
.																
.																
.																
.																
.																
.																
.																
Total																

Signature of Designated SK of the Unit

Signature of Pump Station Nodal Officer

NOTE:

- Transaction ID of Diesel Dispensing Unit (DDU)/ Automation Unit should be mentioned in the body of the requisition slip (which is received from the user department for issue of HSD to the HEMM) while passing the requisition slip for the entry in Issue register as well as in the log book of the concerned HEMM.
- While issuing HSD from the DDU on Requisition slip received from the user department, it is the responsibility of Designated Store Keeper to issue DDU Print slip with HEMM/Machine no. mentioned on it, to the user department for their record and cross verification.
- Care should be taken during giving print instruction to the system for the entry of correct HEMM / Machine no.
- HSD filled in the Diesel Bowser for issue in Field equipment, DDU print slip is to be generated and recorded in the Diesel Bowser Receipt & Issue Register.
- Then gate pass slip showing total quantity of HSD in the Bowser (Previous balance, if any + quantity filled up) shall be issued to the store personnel engaged in the Diesel Bowser for issue of HSD in field equipment before getting exit from the Diesel Dispensing Unit premises. After diesel filling in Field Equipment, the balance stock in the Diesel Bowser should be checked and recorded in the **Diesel Bowser Receipt & Issue Transaction Register (Annexure-D)**.

Format for Diesel Bowser Receipt & Issue Register

Departmental Bowser No.:

Month:

Date	Opening dip reading					Initial Totalizer reading of Diesel Bowser	Issue from DDU (as per DDU print slip)		Total Stock in Ltrs (to be same as Gate Pass) G+I	Total Qty Issued in Ltrs (as per flow meter)	Closing Totalizer reading of Diesel Bowser (should match with J-K)	Closing dip reading					Signature of Designated Store Keeper	Signature of Engineer In-charge of User Dept.
	Chamber 1 in Cms	Chamber 2 in Cms	Chamber 3 in Cms	Chamber 4 in Cms	Corresponding quantity of HSD in Ltrs (Opening Stock)		DDU Tran. ID	Qty in Ltrs				Chamber-1 in Cms	Chamber-2 in Cms	Chamber-3 in Cms	Chamber-4 in Cms	Corresponding quantity of HSD in Ltrs (Closing Stock - should match with L)		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1.																		
.																		
.																		
31																		
Total																		

Note:

- Day-wise accounting of HSD Stock in Diesel Bowser should be maintained in a hard-bound register with entry details as per the above format. The register shall be maintained on daily basis and signed by the Designated Store Keeper and countersigned by the Engineer In-charge of the User Dept. every day.
- The quantity of diesel to be filled in the Diesel Bowser shall be supported by a pre requisition slip from the user department of Field Equipment. DDU print slip is to be generated while filling the HSD in the Diesel Bowser for issue in Field equipment and should be recorded in the Diesel Bowser Receipt & Issue Register.
- Then gate pass slip, showing total quantity of HSD in the Bowser (Previous balance, if any + quantity filled up), shall be issued to the store personnel engaged in the Diesel Bowser for issue of HSD in field equipment before getting exit from the Diesel Dispensing Unit premises.
- After diesel filling in Field Equipment, the balance stock in the Diesel Bowser should be checked and recorded.
- The transaction-wise HSD issued to different equipment through a particular bowser shall be maintained by the user dept. as per **Annexure-E**, a copy of which should be submitted to the designated Depot officer of DDU for records and needful reconciliation.

Format for Diesel Bowser Transaction Register (to be maintained by User Dept.)

Page No.

Departmental Bowser No.:

Date :

	Chamber 1 in Cms	Chamber 2 in Cms	Chamber 3 in Cms	Chamber 4 in Cms	Corresponding Total Quantity of HSD in Ltrs	
Opening Reading						A
Closing Reading						B

Qty. received during the Day in Ltrs		Issue (in Ltrs) as per flow meter			Total Stock in Ltrs	Signature of accompanying Forman In-charge / personnel of User Dept.	Signature of accompanying Security Personnel	Name of Eqpt. Operator	Signature of Eqpt. Operator
DDU Tran. ID	Qty in Ltrs	Eqpt. Type	Eqpt. Sl No.	Qty. in Ltrs.					
C	D	E	F	G	$H_n = H_{n-1} + D_n - G_n$ Where, $H_0 = A$	I	J	K	Q

Signature of Bowser I/C

Signature of the In-charge of User Dept.

Note:

- Daily accounting of HSD Stock in Diesel Bowser should be maintained in a hard-bound register with entry details as per the above format. The register shall be maintained on daily basis and signed by the Diesel Bowser Operator, Security Personnel and Equipment Operator against each transaction.
- DDU print slip is to be generated while filling the HSD in the Diesel Bowser for issue in Field equipment and should be recorded in the Diesel Bowser Receipt & Issue Register.
- Then gate pass slip, showing total quantity of HSD oil in the Bowser (Previous balance, if any + quantity filled up), shall be issued to the store personnel engaged in the Diesel Bowser for issue of HSD in field equipment before getting exit from the Diesel Dispensing Unit premises.
- The quantity of diesel to be filled in the Field Equipment shall be as per the pre requisition slip from the user department of that Field Equipment.
- After diesel filling in Field Equipment, the balance stock in the Diesel Bowser should be checked and recorded in the **Diesel Bowser Receipt & Issue Register (Annexure-D)**.
- At the end of the day, this document should be duly countersigned by the Bowser I/C and In-charge of the user Dept., and a copy of the same should be **sent to Designated Depot Officer of DDU**.
- Any mismatch in the closing stock should be recorded as Diesel Shortage Incident by Bowser Section I/c and reported to Project Officer as per format provided in **Annexure-G** with a copy to Designated Depot Officer.

Annexure-F

Format for Equipment Transaction Register (to be maintained by Section In-charge of User Dept.)

Page No.

Equipment Type:

Equipment SL No.:

Date of HSD filling	Time of HSD filling	Hour Meter Reading before filling	Stock before filling (in Ltrs.)	Qty. received during the Day in Ltrs from Bowser / DDU			Qty. Consumed during previous cycle in Ltrs.	Working Hours during previous cycle	Average Consumption of the eqpt. during previous cycle	Average Consumption of other same/ similar eqpt.	Average Hourly consumption fixed by the Committee (Clause 8.6)	CMPDIL Norms, if any	Remarks	Signature of Authorised in-charge of concerned user dept.
				Bowser Tran. ID	DDU Tran. ID	Qty in Ltrs			Qty. in Ltrs. / hour	Qty. in Ltrs. / hour	Qty. in Ltrs. / hour			
A	B	C	D	E	F	G	$H_n = D_{n-1} + G_{n-1} - D_n$	$I_n = C_n - C_{n-1}$	J=H/I	K	L	M	N	O

Note:

- The Stock in the fuel tank before filling (D) may be obtained from Fuel Level Sensors fitted in the fuel tanks of the equipment as per Clause-8.3.
- In case there is no Fuel Level Sensor installed in the fuel tank, then such equipment should always be filled upto the same maximum / auto cut-off level during every filling. The amount filled in the tank during a particular filling should be considered as the quantity consumed during the previous cycle. In this case, column 'D' shall be left empty.
- In case there is no Fuel Level Sensor installed in the fuel tank and the fuel tanks are cuboidal in shape, then stock just before filling (Column-D) is to be established based on dip level using the simple mathematical formula: "Fuel (in Ltrs.) = Tank Capacity (in Ltrs.) x Height of Fuel in Tank / Total Height of Tank"

Annexure-G

Format for Diesel Shortage Incident Register to be maintained by Section I/C

Sl. No.	Date	Time	Eqpt Type	Eqpt Sl. No.	Shortage Qty. (in Ltr)	Location of Incident	Reported By	Action Taken	Whether recorded in eqpt logbook	Signature of Section I/C
1										
2										
3										
4										
.										
.										
.										
.										
.										
.										
.										
.										
.										
.										

Annexure-H

Format for Diesel Shortage Incident Register to be maintained by Project Officer

Month:

Sl. No.	Date	Time	Eqpt Type	Eqpt Sl. No.	Shortage Qty. (in Ltr)	Location of Incident	Reporting Section / Unit	Action Taken by Project Officer	Reasons for Shortage	FIR Details in case of unexplained shortage
1										
2										
3										
4										
.										
.										
.										
.										
.										
.										
.										
TOTAL										

Annexure-I

Format for Register for Functioning / Breakdown of CCTV cameras

Date:

Number of CCTC cameras installed:

Number of CCTV cameras functioning:

Number of CCTV cameras under breakdown:

Camera wise details of breakdown and rectification:

Sl. No.	Camera ID No.	Details of breakdown		Category of Breakdown (Major / Minor)	Reasons for breakdown	Details of rectification	
		Date	Time			Date	Time

Signature of the Security Officer / Authorised Officer

Format for Quarterly Check / Surprise Check Register of DDU

Name of Diesel Dispensing Unit:

Date and Time:

Totalizer reading at the time of checking:

Density Check:

<u>Standard Density at 15 °C</u>	<u>Density Reading</u>	<u>Temp.</u>	<u>Corresponding Chart Density</u>	<u>Diff.</u>

Observations of the Committee:

- 1.
- 2.
- 3.
- .
- .
- .
- .
- .

Note:

- The committee should inter-alia mention the observations regarding compliance of various clauses of the Policy like display of salient features (Clause-5.2 & 5.3), calibration of measuring instruments / meters and validity of its certification (Clause-5.4 & 5.5), functioning status of CCTV surveillance (Clause-9.3) and other equipment / instruments (Clause-7 & 8), etc.

Documents / Records checked by the Committee:

- 1.
- 2.
- 3.
- .
- .
- .
- .
- .

Note:

- The committee should inter-alia check the originals of licenses issued by PESO and other documents (Clause-5.4), various registers as prescribed in the Policy, etc.

Signature of Committee Members

NB: The points given above are only indicative and not exhaustive. Committee should endeavour to cover all aspects of HSD management during the Quarterly / Surprise Check.

Annexure-K

Format for Quarterly Check / Surprise Check Register of Bowser

Departmental Bowser No.:

Date and Time:

Dip Reading (at the time of Checking)				
Chamber 1 in Cms	Chamber 2 in Cms	Chamber 3 in Cms	Chamber 4 in Cms	Corresponding quantity of HSD in Ltrs

Totalizer reading at the time of checking:

Density Check:

<u>Standard Density</u> at 15 ^o C	<u>Density</u> <u>Reading</u>	<u>Temp.</u>	<u>Corresponding</u> <u>Chart Density</u>	<u>Diff.</u>

Water Check Results & Remarks:

Observations of the Committee:

- 1.
- 2.
- 3.
- .
- .
- .
- .
- .

Note:

- The committee should inter-alia mention the observations regarding compliance of various clauses of the Policy like calibration of measuring instruments / meters and validity of its certification (Clause-7.5 & 7.6), presence of security guard along with the Bowser (Clause-7.7), etc.

Documents / Records checked by the Committee:

- 1.
- 2.
- 3.
- .
- .
- .
- .
- .

Note:

- The committee should inter-alia check the originals of licenses issued by PESO, transaction register (Clause-7.3) and other registers as prescribed in the Policy, etc.

Signature of Committee Members

NB: The points given above are only indicative and not exhaustive. Committee should endeavour to cover all aspects of HSD management during the Quarterly / Surprise Check.

Annexure-L

Format for Monthly Statement about Action Taken on the Complaints about pilferage / theft of HSD

Name of the Project / Mine :

Month :

Pending from Previous Month (Nos.)	Received during the Month (Nos.)	Disposal during the month (Nos.)	Pending Enquiry (Nos.)
A	B	C	$D = A + B - C$

Nature of Disposal (C)

Closed (Nos.)	FIR Registered (Nos.)	Referred to Vigilance Division (Nos.)	Departmental Action Taken		Remarks
			Minor penalty (Nos.)	Major Penalty (Nos.)	

Signature of Project Officer

Note: Details in respect of nature of disposal should be indicated in Remarks Column