

Uniform Policies / Guidelines / Operating Procedures for Management of Receipt, Storage & Reconciliation of Stock and Dispensation / Issue of High-Speed Diesel (HSD) and Motor Spirit (Petrol), wherever applicable, for Non-TFM (Total Fuel Management) Arrangements

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**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. These Policies / Guidelines / Operating Procedures shall also be applicable for management of Motor Spirit (Petrol), wherever applicable.
- 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).
- 1.4 The forthcoming guidelines are related to Non-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 Designated Depot 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 matters concerning HSD Management in the respective Pump Station of project / mine. He shall

be known as the Designated Depot 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 Designated Depot 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 Designated Depot Officer.
- 2.2.3 Only one person shall be the Designated Depot Officer for one Project / Mine.
- 2.2.4 The Designated Depot Officer and the consumer / user should not be the same.
- 2.2.5 The Designated Depot 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 Designated Depot Officer of Pump Station, alternate Officer should be nominated by the Project Officer / Area GM to act as the Designated Depot Officer.

### **2.3 Designated Store Keeper**

- 2.3.1 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.

### **2.4 Diesel Bowsers In-Charge**

- 2.4.1 An officer from Mining / E&M / Excavation cadre should be nominated by the Project Officer as in-charge of all Diesel Bowsers 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 / weekly 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 Designated Depot Officer of the Pump Station, who has been entrusted with the task of Pump Administration. 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 In case of Subsidiary HQ, indent/projection for HSD / Motor Spirit shall be approved by GM (Admin.) of the HQ or his authorized representative.

- 3.4 In case any advance is required to be paid as per agreement, a standby LC may be established for the purpose, for an amount not exceeding 3 days consumption value.

OR

Fund should be transferred preferably during early banking hours for priority loading and decantation on the same day. If not possible, the requisition for the same should be given for next day early morning loading and decantation of HSD on same day to avoid misuse.

#### 4.0 **Receipt of HSD**

##### 4.1 **Constitution of the Decantation Committee for receipt of HSD:**

4.1.1 In each Project / Mine, a committee shall be constituted with the approval of concerned Project Officer for receipt of HSD. The Committee will comprise the following members:

- i. Designated Depot Officer of the Pump Station;
- ii. One Officer from Excavation Department of the Project / Mine;
- iii. One Officer from Mining / E&M Department of the Project / Mine;
- iv. One representative from the Security Department.

4.1.2 Designated Depot Officer shall be authorized to receive the OTP from the OMCs for opening of the Digital Locks. In his absence, another member of the Committee shall be authorized by the Project Officer / Area GM, as the case may be.

4.1.3 The Decantation Committee shall be re-constituted with the new members periodically but not later than three years; or earlier (if warranted).

4.2 On entering the Project / Mine premises or on reaching the decantation site, the Security Guard on duty will inform the Designated Depot Officer about the arrival of TT. The TT registration number, invoice 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 also to be maintained in this format.

4.3 The Designated Depot Officer will then inform the Decantation Committee, which will check for quality and quantity of the HSD as per delivery documents issued by the OMC. Deficiency, if any, shall be duly recorded in the receipt/invoice and signature of OMC representative (or TT driver) is to be taken.

4.4 Decantation Committee should not allow decantation from unsafe, damaged and leaking TTs.

4.5 The following procedures are to be followed by the Decantation Committee for checking the quality and quantity of HSD and the committee should match the details of invoice with the receipt of the product as per the following:

- 4.5.1 Registration number of TT with that mentioned in the invoice.
- 4.5.2 In case of digital/e-lock, the OTP received directly from OMC through SMS by the Designated Depot Officer should be entered in the control panel to open the lock.
- OR
- In case of physical lock, Seal number / Lock number mentioned in the challan cum invoice should be matched with that of the seal / lock fixed on the TT and thereafter the lock should be opened accordingly. (OMCs should be advised to discontinue physical lock system and move to digital lock system on priority)
- 4.5.3 The number of compartments and quantity of HSD contained therein.
- 4.5.4 OMCs should be requested to indicate the expected time that is likely to be taken by TT for reaching to the Consignee from the loading station of OMC. In case of any delay from normal expected arrival time, the matter should be taken up with the OMC and reasons for delay shall be clearly recorded in the challan cum invoice after confirmation from the OMC, before acceptance of material.
- 4.6 OMCs have introduced GPS based Vehicle Tracking System for online monitoring of the movement of the TT. The installation, maintenance of GPS based VTS for tracking the TT and its monitoring shall lie with the OMCs. However, OMCs may be requested to provide viewing rights to the Designated Depot Officer of the Pump so that the movement and time period etc. from the supplier point to the Pump may also be monitored by the user, if required. Any undue delay from the expected arrival time and deviation from the designated route should be reported to the OMC immediately.
- 4.7 Recorded density at 15°C mentioned in the challan cum invoice.
- 4.8 The following documents / items pertaining to TT are also required to be checked and scrutinized:
- 4.8.1 TT registration certificate
  - 4.8.2 License issued by PESO (validity & permitted volume)
  - 4.8.3 Calibration chart and validity of calibration certificate
  - 4.8.4 Approved plan of the TT issued by Dept. of Weights & Measurement
  - 4.8.5 Dip rod
- 4.9 Opening dip reading of the underground storage tank should be entered into the Register (**Annexure-B**) before commencement of Decantation Process.

- 4.10 Opening dip reading of the underground storage tank nominated for receipt is to be checked to ensure sufficient ground storage capacity in order to receive the entire quantity without any overflow.

4.11 **Decantation of the product:**

- 4.11.1 The committee is required to carry out the following activities while decanting the product:

- 4.11.1.1 TT should be left idle / parked for at least 30 minutes on level covered rigid platform to allow product to settle.
- 4.11.1.2 In order to measure the exact quantity of HSD, a horizontal rigid platform should be constructed at all Diesel Dispensing Units. The responsibility of setting up the horizontal rigid platform shall be of the Project Officer.
- 4.11.1.3 Seals / Locks on Delivery Manifold as well as Seals / Lock on Top covers and sealing wire of each compartment are to be checked.
- 4.11.1.4 It should be ensured that TT's diesel tank is also sealed / locked and remains as such during the entire decantation process.
- 4.11.1.5 Before checking dips and taking the readings, the calibration chart available with the TT is to be referred to and validity of calibration certificate is to be verified.
- 4.11.1.6 The approved plan of the TT issued by Dept. of Weights & Measurement is to be referred to for knowing the correct position for dip measurement.
- 4.11.1.7 TT number is punched on each dip rod. TT number as mentioned in the Calibration chart is to be matched with that of the Dip rod.
- 4.11.1.8 The Dip level (the marking against which the diesel level in the compartment is to be checked) and Proof level (marking on dip rod, which should match with top edge of dip tube when dip rod is completely immersed in the dip tube of compartment) markings (as per Weight & Measurement) are to be checked on the Dip Rod. If diesel level is below dip level marking, then it is considered as shortage. If Proof Level marking goes below the top edge of dip tube, it implies that dip rod is worn out or tampered with.

- 4.11.1.9 The length of the Dip rod is also to be verified with that mentioned in the invoice / calibration chart by using a standard measuring tape or scale.
- 4.11.1.10 Master valve levers are to be released to ensure the HSD fills the pipeline. This is because TTs are calibrated in full pipeline and open master valve conditions.
- 4.11.1.11 All the covers of filling-hole, dip hole etc. under the manhole cover are to be opened and visually checked for any discrepancies in the level.
- 4.11.1.12 In order to detect any tampering with the Dip pipe, some quantity of HSD from each compartment is to be taken out through its manifold using a can and again poured back through its Dip-hole from the top.
- 4.11.1.13 The Dip levels of the HSD in all the compartments are to be checked with the calibrated Dip rod by using Oil-paste (within expiry date).
- 4.11.1.14 The presence of water is also to be checked in each compartment by using Water-paste (within expiry date). In case of water being detected with the water finding paste, the valves in the manifold are to be opened compartment-wise and the water from the bottom of the compartment is to be drained out slowly. Once HSD starts flowing out, the valve is to be closed and Actual Dip level and Top up Quantity are to be measured to ascertain the shortage and recorded as mentioned in point no. 4.11.1.19 below. Any presence of water should be reported to the OMC and recorded on the Invoice.
- 4.11.1.15 Proof levels for all the compartments are to be checked to ensure that the datum/base level is ok.
- 4.11.1.16 Samples of the HSD are to be drawn for density and temperature check from each compartment through the valves fixed in the manifold. The samples are to be drawn into a clear glass container. To ensure correct sampling of HSD for density check, samples should be drawn from both top and bottom.
- 4.11.1.17 Density of the product is to be checked using a Hydrometer and temperature using a Thermometer. The density thus measured at atmospheric temperature is to be then converted to density at 15°C using ASTM (American Society for Testing and Materials) Table, i.e. Density Chart. The converted density should be within

the range of +/- 3.0 kg/m<sup>3</sup> as compared with the density indicated in the challan-cum-invoice.

4.11.1.18 In case the converted density using ASTM Table is not within the above limit, then Field Officer of the concerned OMC is to be contacted immediately without decanting the product and joint sampling with OMC should be done, if required.

4.11.1.19 While checking the Dip level, if it is found to be short in comparison to the Dip level mentioned in the challan-cum-invoice, the same should be the shortfall quantity and should be calculated by filling to the correct level by pouring HSD with measuring can from the top and the quantity so filled is to be recorded compartment wise on the face of all the challan-cum-invoice copies as follows:

| Compartment No.            | Dip as per W&M Certificate | Actual Dip | Top up Qty (in ltrs) |
|----------------------------|----------------------------|------------|----------------------|
| 1                          |                            |            |                      |
| 2                          |                            |            |                      |
| 3                          |                            |            |                      |
| Total Shortage (in liters) |                            |            |                      |

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Signatures of Decantation  
Committee Members

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Signature of Driver

4.11.1.20 In case of any dispute with the Driver, the Field Officer of the concerned OMC is to be contacted immediately by the Decantation Committee Member receiving the OTP and OMC may be asked to take the TT back.

4.11.1.21 The dip and density readings should be recorded in a Register in the prescribed format (enclosed as **Annexure-B**).

4.11.1.22 Hose for decanting the HSD in the underground tank should be connected only after completing all the steps mentioned above for ensuring correct quantity and quality.

4.11.1.23 After decanting the product, it is to be ensured that the TT is fully emptied before being released. Once the decantation is complete, the TT should be moved back & forth to accumulate any residual HSD in the pipeline, which should then be poured out manually into the underground storage tank. Thereafter, each compartment of the TT is to be checked with a torch light from the top to ensure that the compartments are completely empty. Mirror gauge is to be used for Bucket sight fixed dome type tankers.

- 4.11.1.24 After completion of decantation of HSD, Dip level of the underground storage tank must be measured. Variation within permissible limits as per norms laid down in Schedule-I of Motor Spirit and High Speed Diesel (Regulation of Supply, Distribution and Prevention of Malpractices) Order, 2005 (and subsequent amendments, if any), is allowed.
- 4.11.1.25 The invoice is then to be signed by the Designated Store Keeper, all Decantation Committee members and TT driver. The recorded density value, Dip levels and shortages (if any) as determined by the Decantation Committee are also to be mentioned in the invoice before signing the invoice.
- 4.11.1.26 Separate Advice is also to be given to the OMC about the shortage for settling claims and follow up thereafter. The shortage is to be credited back in the Customer ID / Account once the TT reaches the depot of the concerned OMC and the matter resolved immediately. Area Nodal Officer shall ensure quarterly re-conciliation of such accounts with the OMC in consultation with Area Finance.
- 4.11.1.27 Issue of Diesel from the ground tank should not be allowed while Diesel is being decanted into the tank.
- 4.11.1.28 During exit, the vehicle must undergo the security drill as mentioned below at Clause-5.1.1.5. This completes the process of receipt of HSD from TT.
- 4.11.2 OMCs have started installing Automation System at the decantation points. 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. The receipt activity (decantation and storage) should be strengthened by installation of Automation System in consultation with the OMCs, which will help in detecting any short supply and quality deviations/ adulteration.
- 4.12 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 **Security Drill during Decantation and Exit**

5.1 Once the tanker arrives at the destination, i.e. the Diesel Dispensing Depot of the Project / Mine, a security drill is to be conducted as follows:

5.1.1 Security Guard on duty will ensure the following:

- 5.1.1.1 TT engine is switched off during the decantation process.
- 5.1.1.2 All electrical systems, ignition, lights, wind shield wipers and music system are turned off.
- 5.1.1.3 Parking brakes are applied and chock blocks are placed.
- 5.1.1.4 All the doors of the TT are closed and the driver cabin is unoccupied.
- 5.1.1.5 Each compartment of the TT is completely empty, after decantation is completed, by checking with a torch light from the top of the TT.
- 5.1.1.6 The exit of the TT from the premises is to be noted in the same Register (**Annexure-A**) maintained at Security Check post.

5.1.2 Technical staff (duly appointed by the project / store authority) of the storage facility will ensure the following:

- 5.1.2.1 Throughout the decantation process, TT operators are near the API (American Petroleum Institute) standard couplers and tanker unit valves, and are prepared to immediately stop the product flow in case of emergency.
- 5.1.2.2 Decantation does not take place if any hoses are unfit or damaged.
- 5.1.2.3 Once fuel decantation is complete all unloading arms are disconnected and placed in their position before the vapor recovery hoses are disconnected.
- 5.1.2.4 TT is not moved if any unloading equipment are still attached.
- 5.1.2.5 It is to be ensured that the TT is fully emptied before being released. Once the decantation is complete, the TT should be moved back & forth to accumulate any residual HSD in the pipeline, which should then be poured out manually into the underground storage tank.
- 5.1.2.6 Before leaving the decantation site, TT is inspected from all sides to ensure that all equipment and hoses are disconnected and there is no visible HSD leak.

5.1.2.7 TT is moved out of the decantation area as soon as possible after the above checks. TT should be sent back in locked condition only.

## 6.0 **Storage & Reconciliation of Stock:**

- 6.1 Dip stick measurement of each storage tank should be taken daily on opening and closing of the Fuel stations and the reading should be recorded in the prescribed format (enclosed as **Annexure-C**) by the Designated Depot Officer.
- 6.2 No vehicle is to be allowed in the fuel station except for refilling, for which time should be specified by the project / stores authorities.
- 6.3 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.
- 6.4 **Handling Losses:** Records of Book Stock and Physical Stock of HSD storage should be maintained properly by the Designated Store Keeper. At the end of the month, Closing Book Stock and Physical Stock should be reconciled as per rules. Tank wise handling losses, if any, are to be certified by the Decantation Committee after observing the necessary guidelines issued in this regard and approval of competent authority (as per delegation of powers) should be taken immediately after completion of the financial year for writing off the shortfall quantity, if any, within the permissible limit as per norms laid down in Schedule-I of Motor Spirit and High Speed Diesel (Regulation of Supply, Distribution and Prevention of Malpractices) Order, 2005 (and subsequent amendments, if any). In case the shortfall quantity is above the permissible limit, it should be brought to the notice of Project Officer and Area GM.

## 7.0 **Pump Administration:**

- 7.1 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.
- 7.2 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.
- 7.3 It will be the responsibility of the 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 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.

- 7.4 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. The same should be verified periodically using measuring cans by the Decantation Committee and any deviations should be recorded and reported to the Project Officer.
- 7.5 HSD Bin card / Ledger / Register in the format enclosed (**Annexure-E**) should be maintained and receipts / issues and book balance quantities should be recorded on daily / shift basis. The same should also be kept in electronic form.
- 7.6 At the time of opening and closing of the Dispensing Unit, dip readings of the underground storage tanks should be taken and recorded in the Register in the format enclosed (**Annexure-C**) and kept for that purpose, along with the Progressive Meter Reading (PMR) or Totalizer Reading / Flow meter reading of all dispensing pumps.
- 7.7 All DDU's should be installed with Progressive Meter (Totalizer) / Flow meters, irrespective of usage status.
- 7.8  $\text{Book balance} = \text{Opening Stock} + \text{Receipts} - \text{Issues}$   
where,  $\text{Issues} = \text{Closing PMR} - \text{Opening PMR} = \text{Sum of all individual issues as per Flowmeter Readings}$
- 7.9 Physical balance is arrived at by converting dip reading from Calibration Charts provided by respective OMCs.
- 7.10 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. Designated Store Keeper and also the Designated Depot Officer of the pump. The variation should be within permissible limits as per norms laid down in Schedule-I of Motor Spirit and High Speed Diesel (Regulation of Supply, Distribution and Prevention of Malpractices) Order, 2005 (and subsequent amendments, if any). Any abnormalities should be reported to the Project Officer, who shall get it examined by the Decantation Committee of the Project/Mines and the matter escalated to the GM Level, if the shortage is above the permissible limits for resolution. In case, involvement of employees is indicated, the matter should also be referred to the Vigilance Department.
- 7.11 It should be ensured by the Designated Depot Officer that the inlet pipes of underground storage tanks, dip rod holes, dispensing nozzles and/or pump starting

switches should be suitably sealed or locked all the time to prevent unauthorized access to pumps or tanks.

- 7.12 In case of abnormal variation in tank behavior due to water or sludge in the tank, tilt in the tank due to blasting etc., the matter shall be taken up with OMCs for cleaning / desilting and recalibration. It should be the endeavor of the Project/Mine to have the cleaning and recalibration done periodically as per the requirement.

## 8.0 **Dispensation / Issue of HSD:**

- 8.1 RFID based Fuel Dispensing System should be used. In this system, the nozzle of the Pump / DDU / Bowser (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.

## 8.2 **Documentation:**

- 8.2.1 An 'Issue Register' should be maintained with all requisite entries as per format provided in **Annexure-F**.
- 8.2.2 Store HSD pump section will issue HSD against indents from concerned authorized executives only.
- 8.2.3 Progressive Meter Reading (PMR) should be recorded before and after each issue of HSD in the Issue Register.
- 8.2.4 Receiver's signature should be obtained on the Issue Register.
- 8.2.5 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.
- 8.3 Any abnormality in dispensing meter functioning should be immediately reported and rectified. Issue of HSD shall be stopped till rectification and re-calibration / stamping by Weights & Measures Department.
- 8.4 HSD to HEMM and light vehicles should be issued from separately earmarked pumps as far as practicable.
- 8.5 HSD issued to Bowsers should be treated as "out of book" stock.
- 8.6 Representative of Designated Depot 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 DDO Representative / HEMM Operator. In such cases, HSD should be dispensed only with the approval of Project Officer.

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

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

9.0 **HSD Bowsers:**

9.1 HSD Bowsers, 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 bowsers shall be fitted with RFIDs Rings. If the RFIDs are tampered with, the same should be immediately informed to the Project Officer/Area GM and corrective action taken.

9.2 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.

9.3 A separate Transaction Register as per enclosed format (**Annexure-G**) 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 for each equipment for ensuring proper usage of HSD, so that pilferage of HSD during filling up of HEMM is avoided.

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

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

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

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

9.8 As far as possible, no stock should be left overnight in Bowsers.

- 9.9 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 Designated Depot Officer of the pump. Any abnormalities should be reported to the Project Officer, who shall get it examined by the Decantation 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.
- 9.10 All Bowsers should be parked in designated secured locations only like DDU's, Workshops, etc. These locations should be under CCTV surveillance.

#### 10.0 **Equipment Administration:**

- 10.1 Fuel gauge, Strainers and Caps along with anti-pilferage locking arrangements should be fitted in all the diesel operated equipment.
- 10.2 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 / Designated Depot Officer, as the case may be.
- 10.3 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.
- 10.4 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.
- 10.5 Transaction details of all equipment running on HSD are to be maintained by the HEMM / Equipment operating department in the format enclosed (**Annexure-H**). 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.
- 10.6 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.
- 10.7 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.

10.8 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.

10.9 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-I** 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-J**.

#### 11.0 **Preventive Measures:**

##### 11.1 **Security Measures at Mine:**

11.1.1 Project/Mine shall ensure deployment of Security Personnel in all three shifts at

11.1.1.1 HSD filling points / HSD pump premises / DDU's.

11.1.1.2 Parking areas of HEMMs and HSD Browsers in workshops / fields.

11.1.2 In addition to static deployment, patrolling by security department should also be done at vital points of the mines in all 3 shifts to prevent any theft.

##### 11.2 **Precautionary measures for avoidance of theft / pilferage of HSD:**

11.2.1 Diesel decanting, diesel issue from Pump, etc. should be done as per laid down procedures.

11.2.2 Leakage of diesel, if any, should be checked and arrested.

11.2.3 All installed meters including fuel level meters / hour meters etc. should be functional on all HEMMs and light vehicles.

11.2.4 Diesel in the tanks of long breakdown HEMMs should be monitored.

- 11.2.5 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.

### 11.3 **CCTV Surveillance:**

- 11.3.1 CCTV camera(s) must be installed at the Pump Station and placed in such a manner so as to capture / record the decantation process; the flow meter / PMR (totalizer) reading and equipment / vehicle ID during the process of issue of HSD to HEMM, Bowsers 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.
- 11.3.2 CCTV cameras should also be installed at parking areas and other suitable / feasible locations in the mine for continuous monitoring and recording.
- 11.3.3 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-K**) 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.
- 11.3.4 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 CIL 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 Area 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.

### 11.4 **Oversight Mechanism:**

- 11.4.1 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 Bowsers. The Committee should scrutinize all records of the HSD Dispensing Units / Bowsers, verify stocks, processes & their implementation and conduct requisite tests as felt necessary. They shall also be present during the process of



Decantation of at least one TT by the Decantation Committee to see that the guidelines/policies/operating procedures are being duly implemented. Record of such quarterly checks are to be maintained at project / store level (**Annexure-L & M**). 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.

11.4.2 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 Bowsers, at least once in a quarter in each Mine / Project. A report (**Annexure-L & M**) 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.

11.5 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-I**) 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-J**.

11.6 In case of recovery of diesel, it can be reused taking it into stock after checking its quality in the presence of the Decantation Committee.

11.7 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.

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

11.9 **Training and Capacity building:**

11.9.1 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.

## 12.0 **Others** :

- 12.1 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.
- 12.2 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.
- 12.3 The success of this Policy / guideline 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.
- 12.4 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.
- 12.5 Data available through Truck Payload Monitoring System (TPMS), where available, should also be utilized for the above purpose.
- 12.6 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.
- 12.7 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.
- 12.8 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.

- 12.9 OMCs should be advised for randomized allocation of TTs for transportation so as to minimize / eliminate possibility of connivance between all concerned.
- 12.10 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-N)**. In case, involvement of employees is indicated, the matter should be referred to Vigilance. Vigilance Division should play a pro-active role by conducting surprise checks and developing source information as a preventive vigilance measure.
- 12.11 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

| <b>Format for Register at Security Check Post / Entry-Exit Point of Pump Premises</b> |      |                                        |                  |                  |                                     |             |                  |         |                                 |                                      |                                 |          |                                      |                                 |
|---------------------------------------------------------------------------------------|------|----------------------------------------|------------------|------------------|-------------------------------------|-------------|------------------|---------|---------------------------------|--------------------------------------|---------------------------------|----------|--------------------------------------|---------------------------------|
| Month of **** , 20**                                                                  |      |                                        |                  |                  |                                     |             |                  |         |                                 |                                      |                                 |          |                                      |                                 |
| Sl. No.                                                                               | Date | Type of Vehicle<br>(TT / User / Other) | Vehicle Reg. No. | Purpose of Visit | In case of TT of HSD / Motor Spirit |             |                  | In Time | Name of Driver<br>(for TT only) | Signature of Driver<br>(for TT only) | Signature of Security Personnel | Out Time | Signature of Driver<br>(for TT only) | Signature of Security Personnel |
|                                                                                       |      |                                        |                  |                  | OMC Name                            | Invoice No. | Quantity (in KL) |         |                                 |                                      |                                 |          |                                      |                                 |
|                                                                                       |      |                                        |                  |                  |                                     |             |                  |         |                                 |                                      |                                 |          |                                      |                                 |
|                                                                                       |      |                                        |                  |                  |                                     |             |                  |         |                                 |                                      |                                 |          |                                      |                                 |
|                                                                                       |      |                                        |                  |                  |                                     |             |                  |         |                                 |                                      |                                 |          |                                      |                                 |
|                                                                                       |      |                                        |                  |                  |                                     |             |                  |         |                                 |                                      |                                 |          |                                      |                                 |

## Annexure-B

### Format for HSD Receipt and Stock Register

Date:

Page No.

#### Indent Details

| Sl. No. | Date, Time & quantity of indent | Indent raised by | Requirement date and time | NEFT/RTGS/Online transfer details | Loading details as per SMS (TT No. etc.) |
|---------|---------------------------------|------------------|---------------------------|-----------------------------------|------------------------------------------|
|         |                                 |                  |                           |                                   |                                          |

#### TT Details

Name of the OMC -----, Tanker No. -----, Key No. ----- (if applicable), Driver's Name -----, Invoice No. -----, Invoice Date -----, Invoiced Quantity-----

Reasons of Delay from expected arrival time of TT (refer Clause 4.6 of Policy) to be recorded: -----

#### Decantation Details

Date of Unloading -----, Start Time -----, Finish Time -----

#### Quantity Check/ Dip measurement of TT:

| <u>Tanker No.</u> | <u>As per Invoice / Challan Dip</u> | <u>Actual/Physical Dip</u> | <u>Shortage, if any</u> | <u>Remarks</u> |
|-------------------|-------------------------------------|----------------------------|-------------------------|----------------|
| Chamber-1         |                                     |                            |                         |                |
| Chamber -2        |                                     |                            |                         |                |
| Chamber -3        |                                     |                            |                         |                |
| Chamber 4         |                                     |                            |                         |                |
| Chamber -5        |                                     |                            |                         |                |

#### Quality Check (Density & Water Check) Details:

| Tanker No. | Challan<br>Density at<br>15 <sup>0</sup> C | Density at the time of Decantation |       |                                |       |                                |       |                                |       | Water test |
|------------|--------------------------------------------|------------------------------------|-------|--------------------------------|-------|--------------------------------|-------|--------------------------------|-------|------------|
|            |                                            | Sample from Top of the Tank        |       |                                |       | Sample from Bottom of the tank |       |                                |       |            |
|            |                                            | Density<br>Reading                 | Temp. | Corresponding Chart<br>Density | Diff. | Density<br>Reading             | Temp. | Corresponding Chart<br>Density | Diff. |            |
| Chamber -1 |                                            |                                    |       |                                |       |                                |       |                                |       |            |
| Chamber -2 |                                            |                                    |       |                                |       |                                |       |                                |       |            |
| Chamber -3 |                                            |                                    |       |                                |       |                                |       |                                |       |            |
| Chamber -4 |                                            |                                    |       |                                |       |                                |       |                                |       |            |
| Chamber -5 |                                            |                                    |       |                                |       |                                |       |                                |       |            |

Contd..

## Annexure-B

### Underground Storage Tank Stock Check Details :

|                    | Tank -1                            |                    |                             | Tank -2                            |                    |                             | Remarks |
|--------------------|------------------------------------|--------------------|-----------------------------|------------------------------------|--------------------|-----------------------------|---------|
|                    | As per Automation System (in Ltrs) | Manual dip reading |                             | As per Automation System (in Ltrs) | Manual dip reading |                             |         |
|                    |                                    | In cm              | Corresponding Qty. in Ltrs. |                                    | In cm              | Corresponding Qty. in Ltrs. |         |
| Before decantation |                                    |                    |                             |                                    |                    |                             |         |
| After decantation  |                                    |                    |                             |                                    |                    |                             |         |
| Product +/-        |                                    |                    |                             |                                    |                    |                             |         |

It is certified that complete stock of TT is decanted and TT released in empty and relocked condition at ----- am/pm on ----- (date)

Signatures of Decantation Committee Members

Signature of TT Driver

**Note:** As per Clause 4.9 of the Policy, Opening Dip reading of the underground storage tank should be entered before commencement of the Decantation process.

**Format of Register for Maintaining Daily Stock of HSD at Pump Station**

Page No.

Name of the HSD Pump Station:

Month:

| Date  | Storage tank No.   | Opening reading                              |                    |                            | Opening Physical Stock [as per ATG or as per Manual Dip, where ATG is not Available] | Opening Quantity in Ltrs (Opening Book Stock) | Difference (in Ltrs) | Qty received during the Day (in Ltrs) | Total Qty (in Ltrs) | Total Qty Issued (in Ltrs) | Closing Book Stock (in Ltrs) | Closing reading                              |                    | Closing Physical Stock [as per ATG or as per Manual Dip, where ATG is not Available] | Difference for the day (in Ltrs) | Progressive Variation (in Ltrs) | Qty of water in the tank (Ltrs) in Automated/ Manual DDU | Signature of Designated store keeper | Signature of Designated Depot Officer |                            |
|-------|--------------------|----------------------------------------------|--------------------|----------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------|----------------------|---------------------------------------|---------------------|----------------------------|------------------------------|----------------------------------------------|--------------------|--------------------------------------------------------------------------------------|----------------------------------|---------------------------------|----------------------------------------------------------|--------------------------------------|---------------------------------------|----------------------------|
|       |                    | Automated Tank Gauge (ATG) Reading (in Ltrs) | Manual Dip Reading |                            |                                                                                      |                                               |                      |                                       |                     |                            |                              | Automated Tank Gauge (ATG) Reading (in Ltrs) | Manual Dip Reading |                                                                                      |                                  |                                 |                                                          |                                      |                                       |                            |
|       |                    |                                              | in cms             | Corresponding Qty. In Ltrs |                                                                                      |                                               |                      |                                       |                     |                            |                              |                                              | in cms             |                                                                                      |                                  |                                 |                                                          |                                      |                                       | Corresponding Qty. In Ltrs |
| A     | B                  | C                                            | D                  |                            | E                                                                                    | F                                             | G = F - E            | H                                     | I= F + H            | J                          | K= I - J                     | L                                            | M                  |                                                                                      | N                                | O= K - N                        | P = $\sum O$ till date                                   | Q                                    | R                                     | S                          |
| 1.    | Tank-1             |                                              |                    |                            |                                                                                      |                                               |                      |                                       |                     |                            |                              |                                              |                    |                                                                                      |                                  |                                 |                                                          |                                      |                                       |                            |
| .     | Tank-2             |                                              |                    |                            |                                                                                      |                                               |                      |                                       |                     |                            |                              |                                              |                    |                                                                                      |                                  |                                 |                                                          |                                      |                                       |                            |
| .     | Tank-3             |                                              |                    |                            |                                                                                      |                                               |                      |                                       |                     |                            |                              |                                              |                    |                                                                                      |                                  |                                 |                                                          |                                      |                                       |                            |
|       | Total for the Date |                                              |                    |                            |                                                                                      |                                               |                      |                                       |                     |                            |                              |                                              |                    |                                                                                      |                                  |                                 |                                                          |                                      |                                       |                            |
| .     |                    |                                              |                    |                            |                                                                                      |                                               |                      |                                       |                     |                            |                              |                                              |                    |                                                                                      |                                  |                                 |                                                          |                                      |                                       |                            |
| .     |                    |                                              |                    |                            |                                                                                      |                                               |                      |                                       |                     |                            |                              |                                              |                    |                                                                                      |                                  |                                 |                                                          |                                      |                                       |                            |
| 31    |                    |                                              |                    |                            |                                                                                      |                                               |                      |                                       |                     |                            |                              |                                              |                    |                                                                                      |                                  |                                 |                                                          |                                      |                                       |                            |
| Total |                    |                                              |                    |                            |                                                                                      |                                               |                      |                                       |                     |                            |                              |                                              |                    |                                                                                      |                                  |                                 |                                                          |                                      |                                       |                            |

**Note:**

- It is the sole responsibility of the concerned Designated Depot Officer of the Unit to monitor the functioning of Automation System installed at Departmental DDU for effective and transparent Fuel Management System (FMS). This Automation System should be maintained like auxiliary equipment/supportive equipment for the production and log book for the same shall be maintained for effective monitoring of the system.
- Daily accounting of HSD Stock should be maintained in a hard-bound register with entry details as per the format given below. The register shall be maintained on daily basis and signed by the Designated Store Keeper and the same should be countersigned by the Designated Depot Officer of the Unit every day.
- In addition to the above, the print out of summary records for everyday transaction should be taken out from the Automation System and properly filed for future records.

**Format for Diesel Bowser Receipt & Issue Register**

Page No.

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)<br><br>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-G**, a copy of which should be submitted to the designated Depot officer of DDU for records and needful reconciliation.



## Annexure-E

| Format for HSD Bin Card /Ledger / Register for receipt/issue and book balance of HSD on daily /shift basis |                                      |                                |                        |                      |                        |                                         |         |                                                 |
|------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------|------------------------|----------------------|------------------------|-----------------------------------------|---------|-------------------------------------------------|
| Date                                                                                                       | From whom received or to whom issued | Ref. No. of bill or issue note | Receipt (Qty in Ltrs.) | Issue (Qty in Ltrs.) | Balance (Qty in Ltrs.) | Signature of Custodian (Designated SK ) | Remarks | Signature of Designated Depot Officer with date |
|                                                                                                            | Opening Stock                        |                                |                        |                      |                        |                                         |         |                                                 |
|                                                                                                            |                                      |                                |                        |                      |                        |                                         |         |                                                 |
|                                                                                                            |                                      |                                |                        |                      |                        |                                         |         |                                                 |
|                                                                                                            |                                      |                                |                        |                      |                        |                                         |         |                                                 |
|                                                                                                            |                                      |                                |                        |                      |                        |                                         |         |                                                 |
|                                                                                                            |                                      |                                |                        |                      |                        |                                         |         |                                                 |
|                                                                                                            |                                      |                                |                        |                      |                        |                                         |         |                                                 |
|                                                                                                            |                                      |                                |                        |                      |                        |                                         |         |                                                 |
|                                                                                                            |                                      |                                |                        |                      |                        |                                         |         |                                                 |

NB: Periodic verification of contents of the Ledger shall be done by the Designated Depot officer who should put his signature with date in relevant columns.

**Format for Register for Issue of HSD from DDU**

Date:  
Page No.

DDU ID:

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

Signature of Designated SK of the Unit

Signature of Designated Depot 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 Register**.

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

Page No.

Departmental Bowser No.:

Date :

|                 | Chamber 1<br>in Cms | Chamber 2<br>in Cms | Chamber 3<br>in Cms | Chamber 4<br>in Cms | Corresponding Total Quantity<br>of HSD in Ltrs |   |
|-----------------|---------------------|---------------------|---------------------|---------------------|------------------------------------------------|---|
| Opening Reading |                     |                     |                     |                     |                                                | A |
| Closing Reading |                     |                     |                     |                     |                                                | B |

| Qty. received during the<br>Day in Ltrs |             | Issue (in Ltrs) as per flow<br>meter |                 |                  | Total Stock in<br>Ltrs                          | Signature of accompanying<br>Forman In-charge / personnel<br>of User Dept. | Signature of<br>accompanying Security<br>Personnel | Name of<br>Eqpt.<br>Operator | Signature of<br>Eqpt.<br>Operator |
|-----------------------------------------|-------------|--------------------------------------|-----------------|------------------|-------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------|------------------------------|-----------------------------------|
| DDU<br>Tran. ID                         | Qty in Ltrs | Eqpt.<br>Type                        | Eqpt.<br>Sl No. | Qty. in<br>Ltrs. |                                                 |                                                                            |                                                    |                              |                                   |
| C                                       | D           | E                                    | F               | G                | $H_n = H_{n-1} + D_n - G_n$<br>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-I** with a copy to Designated Depot Officer.

**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 10.6) | 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                                            | 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-10.3.
- In case, there is no Fuel Level Sensor installed in the fuel tank, then such equipment should be filled upto its full capacity during each 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 blank.
- In case, there is no Fuel Level Sensor installed in the fuel tank and the fuel tanks are cuboidal in shape, then stock 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"

**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       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |
| .       |      |      |           |              |                        |                      |             |              |                                  |                          |

**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   |      |      |           |              |                        |                      |                          |                                 |                      |                                             |

**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.<br>No. | Camera ID<br>No. | Details of breakdown |      | Category of<br>Breakdown (Major<br>/ Minor) | Reasons for<br>breakdown | Details of<br>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:

Time:

| Date | Storage Tank |                     | Book Stock<br>(in Ltr) | Automated Tank<br>Gauge Reading<br>(in Ltr) | Manual Dip Reading |                                | Diff (in Ltr) |       | REMARKS |
|------|--------------|---------------------|------------------------|---------------------------------------------|--------------------|--------------------------------|---------------|-------|---------|
|      | No.          | Capacity<br>(in KL) |                        |                                             | in<br>cms          | Corresponding<br>Qty. (in Ltr) |               |       |         |
| A    | B            | C                   | D                      | E                                           | F                  | G                              | H =D-E        | I=D-G | J       |
|      |              |                     |                        |                                             |                    |                                |               |       |         |
|      |              |                     |                        |                                             |                    |                                |               |       |         |
|      |              |                     |                        |                                             |                    |                                |               |       |         |
|      |              |                     |                        |                                             |                    |                                |               |       |         |

Decantation from TT No.....was seen and recorded as per **Annexure-B**.

Following has been observed:

a)....

b)....

·

·

Note:

The committee should inter-alia mention the observations regarding compliance of various clauses of the Policy like display of salient features (Clause-7.1 & 7.2), calibration of measuring instruments / meters and validity of its certification (Clause-7.3 & 7.4), functioning status of CCTV surveillance (Clause-11.3) and other equipment / instruments (Clause-9 & 10), etc.

Contd...



Other Records / documents / instruments checked at DDU / Diesel Bowser:

1  
2  
3

.  
. .

Note:

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

Testing for water with water paste and automated gauge:

Any other tests carried out:

Brief Description of Findings including status of implementation of Policy

|  |
|--|
|  |
|--|

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.

**Format for Quarterly Check / Surprise Check Register of Bowser**

Departmental Bowser No.:

Date and Time:

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

Totalizer reading at the time of checking:

Density Check:

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

Water Check Results &amp; 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-9.5 & 9.6), presence of security guard along with the Bowser (Clause-9.7), 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-9.3) 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.

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

Name of the Project / Mine :

Month :

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

Nature of Disposal ( C )

| Closed (Nos.) | FIR Registered<br>(Nos.) | Referred to<br>Vigilance<br>Division (Nos.) | Departmental Action Taken |                         | Remarks |
|---------------|--------------------------|---------------------------------------------|---------------------------|-------------------------|---------|
|               |                          |                                             | Minor penalty<br>(Nos.)   | Major Penalty<br>(Nos.) |         |
|               |                          |                                             |                           |                         |         |

**Signature of Project Officer**

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