



(Govt. of India)
(Ministry of Railways)

CHECK LIST FOR INSPECTION OF RCDs ON INDIAN RAILWAYS



CAMTECH/2011/M/RCD Check list/1.0

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अभ्यास RDS
रेल अग्रदूत Transforming Railways



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INTRODUCTION

Fuel is a major item of expenditure in Railway operation. Hence, proper attention needs to be given to the handling of fuel oil. To ensure adequate quality control and correct account of fuel oil, installation should be adequately manned and thoroughly inspected periodically.

RCDs are classified as follows:

1. **Major Installation** (Per day offtake -30.1 KL & above)
2. **Medium Installation** (Per day offtake -15.1 KL to 30 KL)
3. **Minor Installation** (Per day offtake – up to 15 KL)

Following infrastructure is essentially required for RCDs.

- a. Vertical/ underground MS storage tanks.
- b. Electrical/ Diesel pumps with DG sets.
- c. Tank lorry decantation pipeline with pump and hoses.
- d. Delivery line with pump and delivery hoses.
- e. 60 mesh inlet strainer closer to the storage tank.
- f. 10 micron filter closer to the fuelling end for locomotives.
- g. Fire protection arrangements.
- h. Adequate lighting and environmental care.
- i. PC along with printer etc.

For safe and efficient management a comprehensive checklist covering all Technical and managerial parameters for better monitoring was felt necessary and accordingly same has been framed for Indian Railways.

Railway Board has also issued joint procedure order for RCDs in February 2010. The items of JPO and important points of zonal fuel procedure orders have also been included in the check list.

The content of this check list are informative and not statutory. For more information and details, the reference may be made to the relevant codes and JPOs available on the subject.

CHECK LIST FOR INSPECTION OF RCDs ON INDIAN RAILWAYS

Name of inspecting official : -

Designation : -

Date of inspection : -

S.No	Description	Observations
1.0	GENERAL :-	
1.1	Depot	
1.2	Location	
1.3	Division	
1.4	Set up by company	
1.5	Maintenance by	
1.6	Source of supply	
1.7	Staff and assets of the installation	
1.8	Whether detailed drawing of RCD available	
1.9	Whether clearance certificate from controller of explosives obtained	
1.10	Whether standard equipments of RCD are available	
1.11	Whether provision of Boards/Bar charts indicating parameters/Equipments is done i.e. Sketch of RCD, handling losses bar chart, telephone board, safety instruction board, Staff board, survey board & decanting instructions	
1.12	Whether staff is deployed as per bench marking at RCD	
1.13	Whether standard proformas and statements are being used by RCD Incharge.	
1.14	Whether recommended Books & manuals are available at RCD.	
2.0	STORAGE TANKS:	
2.1	Status of tanks	
2.2	No of tanks provided with capacity:-	
2.3	Total capacity of RCD	
2.3 a	Above / below ground	
2.4	Provision of drain cock in each storage tank with lock and seal	

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S.No	Description	Observations
2.5	Whether Storage tank is provided with ladder/catwalk.	
2.6	Whether any leakages observed in Adco valves, joints and pipelines & what action taken by RCD in-charge.	
2.7	Whether ground availability of HSD oil is measured by dip reading in each shift and recorded while handing over and taking over?	
2.8	Whether samples are drawn from storage tanks and tested at the nominated lab once in a month?	
2.9	Whether any abnormal water content reported?	
2.10	Whether cleaning and painting of storage tanks are done once in 5 years? Check the details. (Whether a joint check of storage tanks is carried out by Oil Company and Railway Official after 4 years from last cleaning/ painting/ commissioning)?	
2.11	If tank is having problem in calibration, fresh mathematical calibration is undertaken by oil company?	
2.12	Whether calibration of storage tank is done after cleaning in case of physical deformation of the tank is noticed?	
2.13	Whether the sludge accountal is maintained? How it is disposed off?	
2.14	Whether cleanliness is maintained? Whether illumination/horticulture is provided?	
3.0	DECANTING:	
3.1	No of decanting points	
3.2	Whether 10-15 minutes settling time is being permitted before decanting of Tank lorries	
3.3	Whether decanting is being done during day time only	
3.4	Condition of Decanting hoses and fuelling hoses	

S.No	Description	Observations
3.5	Before commencing the decanting process, it is being ensured that adequate room in the storage tank is available	
3.6	If decanting is done after sunset whether extreme urgency warrants and certified by Sr. DME	
3.7	Whether sample tests with water soluble paste are carried out before decanting	
3.8	Whether dip readings of storage tanks & Tank lorries are being taken before decanting	
3.9	Whether dip reading of tank lorries is taken by SLI/OS(Fuel) personally & procedure exist for checking DL&PL markings of dip rods & their calibration certificates	
3.10	Whether procedure exists to handle the circumstances if contamination/shortage of HSD Oil is found during receipt.	
3.11	Whether decanting is done in storage tank, barrel or directly in locos?	
3.12	Whether level decanting platforms and approach road available for placement of lorries	
3.13	Whether decanting is personally done by SLI(Fuel) and OS(Fuel)	
3.14	Whether decanting is personally inspected by gazetted Officers once in 2 months	
3.15	Whether suppliers' seal at top and bottom is checked after arrival of tank wagon/Road tankers and before decanting	
3.16	Whether tank lorries are completely decanted before giving clearance for the tank lorries to move out of the RCD. All delivery valves of lorries to be kept open when lorry is leaving RCD.	
3.17	Whether challan of lorry is checked and signed by SLI/RCD incharge personally & quantity is verified with the reading of flowmeter/dip measurement of storage tank.	

S.No	Description	Observations
3.18	Whether joint inspection is carried out in case of tampering/missing of seals?	
3.19	Whether standard lorry Decanting Proforma is being filled by SLI/OS(Fuel) after decanting	
4.0	ISSUE OF HSD OIL:	
4.1	Total numbers of fuelling points	
4.2	Locations of fuelling points: -	
4.3	Provision of Remote control switches and its conditions	
4.4	Leakage from valves/joints of fuelling pipe line	
4.5	Number of fire buckets	
4.6	Number of fire extinguishers, location & due date for testing/refilling.	
4.7	Whether standard numbered ledger (printed & bound book) is maintained by RCD incharge. All receipts, transfers, survey, adjustments, issues & closing balance is recorded in the ledger.	
4.8	Whether survey adjustment is being posted in the receipt column(in blue ink for excess & in red ink for shortage)	
4.9	Whether adequate computer facility is provided?	
4.10	Whether issue is done with calibrated flow meter with totaler?	
4.11	Whether standby flow meter is provided by oil company at Railways cost ?	
4.12	Whether the accountal is done by flow meter only? (Whenever the flow meter is calibrated and is in working condition)	
4.13	Whether any incident of variation noticed between flow meter and fuel glow rod gauge reading?	
4.14	Whether flow meter totaler recording is noted on every shift?	
4.15	Whether variation between book balance and ground balance is monitored on day-to-day basis?	

S.No	Description	Observations
4.16	Whether any incident of such variation of more than +/- 1% occurred? What were the reasons and remedial action taken?	
4.17	Whether appropriate action is taken when flow meter /totaler becomes defective	
4.18	Whether logbook is maintained for date of defect, date of repairs, nature, date of calibration & date of replacement?	
4.19	Whether the issue of oil is accounted by loco fuel glow rod gauge when the flow meter becomes defective?	
4.20	Whether issues made to running locos are summarized & only total issue is posted in to the ledger	
4.21	Whether HSD oil is being issued for non traction purpose also	
4.22	Whether standard fuel issuer diary is being filled in each shift by fuel issuer	
4.23	Whether quantity issued to locomotives is being recorded in the Trip cards of Diesel Locos by fuel issuers	
5.0	MEASURING INSTRUMENTS:	
5.1	Whether all types of measuring instruments i.e. Dipstick, flow meter & Dip tap etc. are available?	
5.2	Whether the dipstick/dip tap bears identification mark/stamp of oil company?	
5.3	Whether receipt record of such mark dip stick/dip tapes is maintained	
5.4	Whether dipsticks are certified for its correctness by each fuel issuer while taking over charge at the beginning of the shift.	
5.5	Whether dipstick / tapes are inspected by representatives of Oil Company once in a year?	
5.6	Whether the dipsticks / tapes are replaced after 5 years or whenever they become defective?	
5.7	Whether the flow meter is calibrated by oil	

S.No	Description	Observations
	company once every year? Whether report of calibration is furnished?	
5.8	Whether the flow meter is replaced after dispensing 4 Lakh KL of HSD oil or 15 years after installation of the flow meter, whichever is earlier or whenever it becomes defective?	
5.9	Whether logbook on the working of the flow meter is maintained?	
5.10	Whether any failure in calibration of flow meter as per laid down frequency by oil co. is reported to HQR?	
5.11	Whether 3 Nos. of 200 liters capacity calibrated drums bearing identification marks are available?	
5.12	Whether accuracy of repaired flow meter is checked by using calibrated drums?	
5.13	Condition of Calibration Charts for reference?	
5.14	Whether original duly signed calibration charts have been issued by oil company	
6.0	HANDLING LOSS:	
6.1	Whether any incident of handling loss occurred?	
6.2	Whether the handling loss exceeds the permitted ceiling of 0.1% since last SV?	
6.3	Whether any abnormal loss of oil reported to SR.DME & HQR?	
6.4	Whether swift corrective action taken to prevent further loss?	
6.5	HSD oil available in tank during inspection as per dip	
6.6	HSD oil available in pipe line	
6.7	Total stock available during inspection as per dip (6.5+6.6)	
6.8	Total stock available during inspection as per Ledger book.	
6.9	Difference between total stock as per dip and book balance.	
6.10	% of loss / gain	

S.No	Description	Observations
6.11	Whether within permissible limit or not.	
7.0	STOCK VERIFICATION & INSPECTIONS:	
7.1	Whether the laid down frequency of verifications is followed* a. Once in a year by Sr DME i.e in April b. Twice by ADME/DME i.e. in August & December c. Once by stock verifier of accounts department d. Thrice by SLI(Fuel) of RCD i.e. in Feb., June, Oct.	
7.2	Whether the book balance is reconciled with ground balance, during stock verification?	
7.3	Whether detailed report made after stock verification?	
7.4	Whether Periodic inspections are undertaken by the divisional Officers, besides stock verification? Whether detailed report is prepared?	
7.5	Whether thorough inspection of storage tanks & equipments is being done by SLI(Fuel)/RCD incharge once a week & recorded in the Inspection register	
8.0	PUMP HOUSE:	
8.1	Availability of Electrical / Generation pump	
8.2	Availability Diesel Pumps	
8.3	Whether standby power supply arrangement is available or not	
8.4	Availability of Hand operated Pumps	
8.5	Condition of pumps	
8.6	Provision of flame proof starters, elect. cables & switches	
8.7	Provision of earthing to motors and starters	
8.8	Ventilation in pump house	
8.9	Provision of illumination in the area of operation of pump	
8.10	Whether provision of 60 mesh strainer/Filter on decanting side is done by oil company & they	

S.No	Description	Observations
	are being cleaned once a fortnight.	
8.11	Whether Filters are provided in Delivery side and they are being replaced once in 3 months & its record is being maintained in the register.	
8.12	Whether records maintained for date of cleaning / next cleaning of filters	
9.0	SAFETY PRECAUTIONS AT RCD:	
9.1	<ul style="list-style-type: none"> • None shall carry matches, lighters etc. None shall smoke within 30 meters of the Installation or Oil tanks. • Scale of facilities for fire fighting. • No.of fire extinguishers type & capacity wise. • No.of water buckets. • No.of sand buckets. • Key of fire buckets. • Training of staff in combating fire. • List of personnel who should be informed in case of fire in sequential manner. 	
9.2	Premises in and around the installation should be free from inflammable materials	
9.3	Storage tanks must have 5% vacant room as free air space	
9.4	Fire extinguishers and Buckets should be maintained in effective condition	
9.5	Only fire proof lighting equipments should be used	
9.6	The installation should not be used as store for filters, Lube oil, HSD oil in barrels	
9.7	Plants/Grass should not be allowed to be grown within the boundary walls	
9.8	Safety monthly inspections by Oil company with Railway representative.	
10.0	Any other remarks/observations.:	

OUR OBJECTIVE

To Upgrade Maintenance Technologies and Methodologies and achieve Improvement in Productivity and Performance of all Railway Assets and Manpower which Interalia would cover Reliability, Availability, Utilisation and Efficiency.

If you have any suggestions and any specific comments, please write to us :

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