Note-

1. Coaches should be offered in the lot of 7 to 8 Nos. (Ex. 04 Coaches in Stage-III + 02 Coaches in Stage IX + 01 to 02 Coaches in Final Testing), so that 5-6 days visit of 2 Engineers may be planned in one go accordingly.
2. Dedicated staff names of RCF for these Stages and Final activities are to be provided and to be accompanied during coach inspection activities.
3. Each Coach must be pre-inspected by RCF inspector as per RCF SIP (Self Inspection Plan) and by using these checksheets before offering the coach to RITES. Filled SIP and these checksheets of Stage-III, Stage-IX and Testing to be submitted to RITES.
4. 100% checks by RCF to be done unless otherwise specified in accordance with the check sheet mentioned below.
5. The Intensive Check specified in Part B and General Check specified in Part C to be done 100% by RCF & 25% and 5% by RITES on sample basis respectively.

Variant: LSCN
Coach / Shell No.:
Date/ Dates: Locations:
Name of RITES Inspector:
Name of RCF officials:

Part A – Document Check **Checksheet- Design**

Check Sheet-D1

Ref. RCF Kapurthala PO No.: 02259001101961 dated 18.10.2025.
"Safety Inspection of 02 model rakes at RCF Kapurthala as per spec EDML 269 Rev 0 issued vide Letter No. ED RCF/HSQ/ED/2129 (Audit) dated 01.10.2025"

Reference -

i) RITES Audit Report No. QA/NR/ISA/RCF/ABLSCN/01 Rev.00 APRIL 2025.
ii) RCF letter no. RCF/HSQ/ED/2129(Audit) dated 20.08.2025 issued with Document No. RCF/AUDIT/ISA/ABLSCN Rev.0 Annexure-A, dated 19.08.2025.

1. Check Document for Rating / setting of following components (please refer RCF letter under Ref.(ii).

S. No. of Annex A	S. No. of Audit	Action Points	Inspection points	RCF observations	RITES observation
3	3	Fuse rating of Mobile/Laptop charging circuit: 10A	Check any modification has been issued in drawings/ specification for fuse rating from 6A to 10A (Drawing no. CC72446). - Check on coach also.		
4	4	Accident Emergency Light (AEL) circuit	Check any modification has been issued in drawings/ specification for fuse rating from 6A. It should be lower. - Check on coach also.		

2. Check if revised work instructions have been issued for:
   - Manufacture of Model Rake (which essentially involves inclusion of this check sheet)
   - Testing of coach and rake as per Audit Report to include Illumination check.

3. Checks on embedded devices such as WSP or any other embedded device fitted on coach.

SN	Operative part of Check	Observation by RCF official	Observations by RITES officials (Accepted/ Not Accepted)

WSP			
1	Check if line diagram, circuit diagram and specification have been issued		
2	- Check if use of Fire-retardant material has been specified.		
Any other equipment of this category			
1	Check if line diagram, circuit diagram and specification have been issued		
2	- Check if use of Fire-retardant material has been specified.		

Part B- Manufacturing Inspection Checksheet - Quality

Check Sheet-Q1

Variant: **LSCN**
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

Intensive Check (100% by RCF & 25% by RITES)

Reference -

i) RDSO Code of Practice for 'Prevention of Fire in AC Coaches – Doc. No. RDSO/PE/O/0008-2005 (Rev-0)'.
ii) RDSO Specification and Code of Practice for Wiring In 750 V EOG System Coaching Stock - Doc. No. ELPS/SPEC/EOG/01, March 1994.
iii) RCF work instructions as mentioned.
iv) RITES Audit Report No. QA/NR/ISA/RCF/ABLSCN/01 Rev.00 APRIL 2025.
v) RCF letter no. RCF/HSQ/ED/2129(Audit) dated 20.08.2025 issued with Document No. RCF/AUDIT/ISA/ABLSCN Rev.0 Annexure-A, dated 19.08.2025.

S. No. of Annex A	S. No. of Audit	Clause No.	Operative Part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
7	1	1.2 of sheet 1	Check availability of Ferrules at LV panel Cables (Net 1 & 2 Control, Exhaust fan MPCB, Main DC input, L1, L2, Fan, EFT and PACIL cables) and All cabin's JB cables. There should not be any handwritten /missing ferrules.		
8	2	1.3 of sheet 1	Check provision of fuse cover at LV panel PACIL circuit. It should not be damaged.		
10	4	2.2 of sheet 1	Check Positive fuse box cable and Cabin no-07 JB. There should not be any PMA RVH joint.		
11	5	2.7 and 2.12 of	Check HT panel cables RVH. It should be		

S. No. of Annex A	S. No. of Audit	Clause No.	Operative Part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
		Sheet 1	secured with Clamps.		
13	7	2.10 & 3.4 of Sheet 1	Check Near dump valve 70mm conduit pipe clamp bolt and NPP net 2 feeder JB body earth cable mounting bolt, PP exhaust fan mounting bolts. Proper hardware should be proper.		
14	8	2.13 & 5.3 of Sheet 1	Check provision of grommets at HT panel inside D&ED cable entry area		
15	9	2.14 & 2.15 of Sheet 1	Check earth cable connection at Cabin 1 JB Connection. It should be proper and no strands to be visible outside		
16	10	2.18 of Sheet 1	Check LV panel safety mechanical cover. There should not be any damage.		
17	11	3.2 and 10.1 of Sheet 1	Check provision of internal earth cable in FL light and Fan.		
18	12	3.3 of Sheet 1	Check Feeder JB rear side rubber hose area and PACIL area. Water sealant should be applied		
20	14	3.7 of Sheet 1	Check provision of Marking for shunt at 9KVA transformer and HT panel as per specification no. RDSO/PE/SPEC/TL/0158 Rev-1, Corr.1.		
21	15	5.4 & 5.5 of Sheet 1	Check Fan +ve cable Crimping socket, Negative bus bar output cables and 9KVA Transformer inside cable. The Crimping socket should be secured with heat		

S. No. of Annex A	S. No. of Audit	Clause No.	Operative Part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
			shrink sleeve.		
23	17	7.1 of Sheet 1	Check Battery box inside internal loop cables. It should be secured with PMA hose or PMA jacket		
24	18	9.1 of Sheet 1	Check mounting clamp of 70mm conduit pipe at NPP bogie top side, and near 9KVA Transformer, near dump valve. It should be properly tightened, and hardware size should be proper. Verify from drawing no. LS11264 (latest revision)		

Check Sheet-Q2

Inspection Check sheet for Cabling and Harness

Reference -

i) RITES Audit Report No. QA/NR/ISA/RCF/ABLSCN/01 Rev.00 APRIL 2025.
ii) RCF letter no. RCF/HSQ/ED/2129(Audit) dated 20.08.2025 issued with Document No. RCF/AUDIT/ISA/ABLSCN Rev.0 Annexure-A, dated 19.08.2025. Section 3 Manufacturing Audit.
iii) EDTS 252 Rev J Corr 10,
iv) ELRS/SPEC/ELC/0019 Rev-4,
v) RDSO/PE/SPEC/AC/0138-2009, Rev-1,
vi) Work instruction EDW 003, EDW006, EDW007

Variant: **LSCN**
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

S. No. of Annex A	S No. of Audit	Clause No.	Check point	RCF Observations	RITES Observations (Accepted / Rejected)
26	20	7 of sheet 2	Check Speed sensor JB box 1 and 2, HT panel LHS & RHS cable entry area RVH. The end fitting connection should not be loose.		
27	21	8 of sheet 2	Check Positive fuse box cable as per drawing no. LW70001 alt 'j'.		
28	22	9 of sheet 2	Check provision of terminal colour coding at EFT & BCS terminals		
29	23	10 of sheet 2	Check earth cable crimping at LV panel, Dump valves earth, Feeder JB body earth cables. It should be proper and no excess insulation to be removed		
30	24	11 of sheet 2	Check provision of proper hardware at near 9KVA Transformer & NPP bogie top side 70mm conduit pipes		

S. No. of Annex A	S No. of Audit	Clause No.	Check point	RCF Observations	RITES Observations (Accepted / Rejected)
			clamp (under frame), PP Gangway & Cabin 4 JB top side 20mm PVC Conduit pipes clamp (Roof), Cabin 5 Fans guard, Cabin 9, 7 & 6 USB cable's PMA hose, PP side Exhaust fan and Cabin's mounting.		

Check Sheet-Q3

Inspection Check sheet for Preparation of harness

Ref specification-

i) All Harness specifications.

ii) RITES Audit Report No. QA/NR/ISA/RCF/ABLSCN/01 Rev.00 APRIL 2025.

iii) RCF letter no. RCF/HSQ/ED/2129(Audit) dated 20.08.2025 issued with Document No. RCF/AUDIT/ISA/ABLSCN Rev.0 Annexure-A, dated 19.08.2025. Section 3 Manufacturing Audit.

Variant: **LSCN**
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

S. No. of Annex A	S No. of Audit	Clause No.	Operative part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
32	26	5.1 of sheet 3	Check proper fitting of PP gangway FL. There should not be any gap		

Check Sheet-Q4

Inspection Check sheet for Precaution to be taken while laying of cables

Ref specification-

iv) All cables specification

v) RITES Audit Report No. QA/NR/ISA/RCF/ABLSCN/01 Rev.00 APRIL 2025.

vi) RCF letter no. RCF/HSQ/ED/2129(Audit) dated 20.08.2025 issued with Document No. RCF/AUDIT/ISA/ABLSCN Rev.0 Annexure-A, dated 19.08.2025. Section 3 Manufacturing Audit.

Variant: **LSCN**
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

S. No. of Annex A	S No. of Audit	Clause No.	Operative part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
33	27	3.1 of sheet 4	Check Fuse box inside cable bending radius. It should be greater than 4D		
34	28	3.2 of sheet 4	Check Net 1 side BCT cables, Cabin 8 FL (LED 15) cable. It should be secured with PMA Jacket		
35	29	3.10 of sheet 4	Check provision of proper hardware and clamp at Cabin 4 JB top side 20mm PVC conduit pipe, Cabin 3 to 4 in between 20mm PVC conduit pipe. Cabin 7, 6 PMA hose, Cabin 8 corridor side switch cable RVH, PP gangway near 20mm conduit pipe.		
36	30	3.14 of sheet 4	Check Exhaust fan near, EFT cable routing. It should be proper and no RVH joint.		
37	31	3.23 of sheet 4	Check provision of proper cable crimping		

S. No. of Annex A	S No. of Audit	Clause No.	Operative part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
			at NPP net 1 & 2 feeder JB potential earth cable, LV panel body earth cable, Dump valve 3 body earth, NPP net 2 feeder JB body earth cable, PP net 2 feeder JB earth cable.		

Check Sheet-Q5

Inspection Check sheet for Testing of Regulated Battery Chargers used for LHB/EOG Coaches

Ref specification-

i) EDW-0019, Version-1, EDTS163 REV-C, COR-5

ii) RITES Audit Report No. QA/NR/ISA/RCF/ABLSCN/01 Rev.00 APRIL 2025.

iii) RCF letter no. RCF/HSQ/ED/2129(Audit) dated 20.08.2025 issued with Document No. RCF/AUDIT/ISA/ABLSCN Rev.0 Annexure-A, dated 19.08.2025. Section 3 Manufacturing Audit.

Variant: **LSCN**
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

S. No. of Annex A	S No. of Audit	Clause No.	Operative part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
38	32	3.0 of sheet 5	Check segregation of +ve &-ve cables in the jumper & branch wiring circuit as per CAI No. ED/CAI/037 dt. 24.09.2024		
39	33	4.1 of sheet 5	Check Coach load, Battery load +ve cables. There should not be any interchanged		
42	35	4.4.1 of sheet 5	Check all indications are in working condition.		

Check Sheet-Q6

Inspection Check sheet for Crimping of Cable Ends and Cable Terminations

Ref specification-

i) EDTS-200, Rev nil, Am-2, Cor-3 or (Latest)
ii) EDTS-201 Rex 'A', Am 1. Cor-2 or (Latest)
iii) IEC/EN-60352-2-2006 A1-2013
iv) IEC-61238-1
v) BS 7609:1992
vi) RDSO specification no. ELRS/SPEC/ELC/0019, (Rev) or Latest
vii) RITES Audit Report No. QA/NR/ISA/RCF/ABLSCN/01 Rev.00 APRIL 2025.
viii) RCF letter no. RCF/HSQ/ED/2129(Audit) dated 20.08.2025 issued with Document No. RCF/AUDIT/ISA/ABLSCN Rev.0 Annexure-A, dated 19.08.2025.

Variant: **LSCN**
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

S. No. of Annex A	S No. of Audit	Clause No.	Operative part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
45	38	3.1.5 of sheet 7	Check earth mounting area paint are being removed properly and bolt and crimp socket placement correct at LV panel, RBC Cum EBC, Both bogie earth and NPP Net 2 Feeder JB body earth.		
47	40	3.1.11 of sheet 7	Check provision of heat shrink sleeve at both fuse box inside cable crimping area		
48	41	3.1.12, 3.1.19 of sheet 7	Check bus bar output cables Crimping socket secured with heat shrink sleeve,		

S. No. of Annex A	S No. of Audit	Clause No.	Operative part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
			provision of proper FRLT tape, Ferrules are not handwritten		
51	44	4.0 of sheet 8	Check Records of insulation resistance as per work instruction EDW 0025 Ver 1.0 dt. 09.06.2025		

Check Sheet-Q7

Checks on embedded devices such as WSP or any other embedded device fitted on coach –

Variant: **LSCN**
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

A. WSP

SN	Operative part of Check	RCF Observation	RITES Observations
1	If use of Fire-retardant material for cables has been specified in line diagram / circuit diagram / specification. - Check the cables provided are marked for Fire-retardant properties.		

B. Any other equipment of this category

SN	Operative part of Check	RCF Observation	RITES Observations
1	If use of Fire-retardant material for cables has been specified in line diagram / circuit diagram / specification. - Check the cables provided are marked for Fire-retardant properties.		

Part C- Manufacturing Inspection

Checksheet – Electrical Production

Checksheet-P1

STAGE-III ROOF/PRECELING OF LWSCN, LHB NON AC SLEEPER CLASS COACH

Variant: LSCN
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

Note- RCF check - 100%, RITES check - 5%.

S. NO	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
1	Ensure DC 110 V +ve & -ve wires routed in separate conduit/sleeve		
2	Ensure all cables are as per specification number ELRS/SPEC/ELC/0019 Rev-04		
3	Ensure roof all cabins rooftop, sidewall and doorway area **20 mm** PVC conduits C-clamping tightness with proper hardware at regular distance		
4	Ensure that all PVC, PMA shall be routed through the dedicated 'Through-hole' wherever applicable		
5	Ensure that there is no conduit damage and use a PVC pipe connector at the joining areas		
6	Ensure all PMA hoses/Sleeves are secured properly and have no joint		
7	Ensure necessary sharp edge protection for cables using PMA hose (for metal contact) & Sleeves (for non-metallic contact)		
8	Check all roof cables (LED, Fan, AEL, Alarm card, PACIL, Charging socket, Exhaust fan) for size, colour code and printed ferrules as per EDTS-357 Rev-C		
9	Ensure all Rooms JB/cage clamp Cables are provided with printed ferrules		
10	Ensure that Cables are properly connected at all Cage clamps terminals/Wago with 1A glass fuses, and no strands to be visible outside		
11	Ensure all alarm card cable connection		

	with proper wago connector		

Additional Remarks (if any)

CONFIRMING/NON-CONFIRMING

RCF Representative Signature with Date		RITES Representative Signature with Date	
Name		Name	

Checksheet-P2

STAGE-III UNDER FRAME OF LWSCN, LHB NON AC SLEEPER CLASS COACH

Variant: LSCN
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

Note- RCF check - 100%, RITES check - 5%.

S. No	CHECK POINTS	RCF OBSERVATIONS	RITES OBSERVATIONS
1.	**750V FEEDER PIPE, CABLE TRAY & FEEDER JUNCTION BOX (FDB)**		
1.1	Ensure all 70 mm Conduit clamps are tightened with a head bolt, nylock nut and plain washer.		
1.2	Ensure the tightness of 70 mm conduit clamps in both PP and NPP bogie areas		
1.3	Ensure the provision and tightness of clip clamps on the rubber hoses at the feeder conduit pipe joint area		
1.4	Ensure the provision of silicon sealant at the rubber hose in the conduit joint area		
1.5	Ensure the closing of dummy holes in the feeder junction box with proper caps		
1.6	Check underframe cable tray laying and ensure it is properly secured with clamps using spring and plain washers		
1.7	Ensure that Cable tray joints are done with min 2 set of hardware and that there is no gap between the cable trays		
1.8	Ensure that there is no cable tray is infringing with brake pipe lines.		
1.9	Ensure the tightness of all FDB cover earth cable with proper hardware		
1.10	Ensure the tightness of all FDB cover with proper hardware and rubber gaskets.		
1.11	Check the sharp edge protection at the feeder cable entry area in the FDB and ensure the bending radius should not be less than 4D		
1.12	Ensure that PMA hoses are properly secured with clamps at the rear side of the FDB and both cable tray and non-cable tray area		

S. No	CHECK POINTS	RCF OBSERVATIONS	RITES OBSERVATIONS
2.	**POSITIVE (+VE) AND NEGATIVE (-VE) FUSE BOX**		
2.1	Check the fitment of +VE & -VE fuse boxes with proper hardware		
2.2	Ensure that dummy holes are closed in both fuse boxes		
2.3	Ensure that stenciling in done both fuse boxes.		
2.4	Ensure the provision of Fuse Safety covers in both fuse boxes. (3Nos)		
2.5	Ensure PMA hose have no joint and their end fittings are provided with gasket.		
3.	**9 KVA TRANSFORMER**		
3.1	Ensure that transformer PMA conduits are properly secured with clamps and have no joint		
3.2	Ensure that PMA end fittings are tightened and provided with gasket		
4.	**RBC Cum EBC**		
4.1	Ensure that PMA conduits are properly secured with clamps and have no joint		
4.2	Ensure that PMA end fittings are tightened and provided with gasket		
5.	**BATTERY BOX & BATTERY**		
5.1	Ensure that PMA conduits are properly secured with clamps and have no joint		
5.2	Ensure that PMA end fittings are tightened and provided with gasket		
6.	**SPEED SENSOR CABLE AND DUMP VALVE**		
6.1	Ensure that PMA conduits are properly secured with clamps and have no joint		
6.2	Ensure that PMA end fittings are tightened and provided with gasket		
7.	**HT/LV PANEL**		
7.1	Ensure that PMA conduits are properly secured with clamps and have no joint		
7.2	Ensure that PMA end fittings are tightened and provided with gasket		
8.	**WRP SET**		
8.1	Ensure that PMA conduits are properly secured with clamps and have no joint		
8.2	Ensure that PMA end fittings are tightened and provided with gasket		
9.	**COMMON POINTS FOR ELECTRICAL EQUIPMENTS**		
9.1	Ensure underframe all cables size, colour code and ferrules as per harness EDTS-357 Rev C or latest.		

General remarks (If Any):

CONFIRMING/NON-CONFIRMING

RCF Representative Signature with Date		RITES Representative Signature with Date	
Name		Name	

Checksheet-P3

STAGE-III LOADING OF LWSCN, LHB NON AC SLEEPER CLASS COACH

Variant: LSCN
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

Note- RCF check - 100%, RITES check - 5%.

S.NO.	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
1.	**BATTERY BOX & BATTERY BANK (110V, 120 Ah)**		
1.1	Ensure the battery bank is properly loaded in the battery box with adequate packing (19 cells each having the capacity of 6V)		
1.2	Ensure wooden stoppers are provided inside the battery box, if required		
1.3	Ensure all batteries are of the same make and the lug date is within six months		
1.4	Check that no battery cells are damaged or leaking.		
1.5	Ensure the battery cell top stopper plate is properly tightened		
1.6	Ensure the battery box is properly mounted with correct hardware		
1.7	Ensure the battery box doors are closed with wing nuts, and the lower part of the doors is welded. The welded area shall be properly painted		
2.	**9 KVA TRANSFORMER**		
2.1	Ensure the 9 KVA transformer is fitted with proper hardware and torque markings are done.		
2.2	Ensure the transformer holding safety chain is provided		
2.3	Ensure the transformer fixing frame is properly painted		
3.	**RBC Cum EBC**		
3.1	Ensure the RBC Cum EBC is fitted with proper hardware and torque markings are done.		
3.2	Check the **RBC** WAGO connections are properly made and no wire strands are visible outside		
3.3	Ensure terminal Box cover are tightened with proper hardware and dummy holes are arrested		
3.4	Ensure RBC door is closed with proper hardware and ensure the provision of door stay arrangement		
4.	**HT & LV PANEL**		
4.1	Ensure both HT & LV panel mounting tightness with proper hardware (Plain Washer, Spring Washer, Check		

S.NO.	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
	nut and Safety Pin)		
4.2	Check the tightness of all PMA hose clamps and end fittings with O-rings, and ensure that there are no joints in the PMA hoses		
4.3	Check proper use of Fire barrier at LV & HT panel cable entry area.		
4.4	Ensure the D&ED, Control Transformer and all Fuse base mounting with proper hardware		
4.5	Ensure all Contactors, MPCBs, RCBO, RC Filters, Fuses and Relays etc. Identification Numbers as per EDTS 355 Rev-1 or Latest		
4.6	Ensure all Cable ferrules as per EDTS-357 Rev C or Latest		
4.7	Ensure all Cable crimping with proper lug and heat shrink sleeve provision		
4.8	Ensure all Cable tightness with proper hardware and not more than two cables are connected at any terminal		
4.9	Ensure D&ED cables are secured properly with sleeves and grommet is provided at the cable entry area of the D&ED		
4.10	Ensure all cable dressing, tray covers, Poly carbonate sheet and fuse safety covers are provided.		
4.11	Ensure provision of Each 1 Nos. at LV and HT panel Aerosol based Fire Suppression system with proper fitment and verify their locations		
4.12	Check the Double earthing for HT & LV panel with proper hardware		
4.13	Ensure door stay is provided to hold the power panel door open during service		
4.14	Ensure the sharp edge protection is provided at both panel corner areas		
4.15	Ensure HT & LV panel doors are closed with proper hardware		
5.	**WRP SET & WRP CONTROLLER**		
5.1	Check the mounting of WRP with proper hardware		
5.2	Ensure the PMA hoses clamping with proper hardware and have no joint		
5.2	Ensure the tightness of the WRP controller with proper hardware		
5.2	Ensure the WRP controller cable connections are properly made and secured with sleeves		
6.	**EXHAUST FAN**		
6.1	Check the mounting of exhaust fan with proper hardware		
7.	**COMMON POINTS FOR ALL ELECTRICAL EQUIPMENTS**		
7.1	Ensure all Electrical equipment mounting bolts torque		

S.NO.	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
	are done		
7.2	Ensure and all electrical equipment have nameplates indicating ratings as per RCF/RDSO specifications and note down Inventory details		
7.3	Ensure that earth marking is provided on all electrical equipment		

Additional remarks (if any)

CONFIRMING/NON CONFIRMING

RCF Representative Signature with Date		RITES Representative Signature with Date	
Name		Name	

Checksheet-P4

STAGE-IX ROOF LWSCN, LHB LSCN NON AC SLEEPER COACH

Variant: LSCN
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

Note- RCF check - 100%, RITES check - 5%.

S. No	ITEM TO BE INSPECTED	RCF OBSERVATION	RITES OBSERVATION
1.	**LED FITTING (Cabin, Doorway & Gangway area-26 Nos, Each 9W), (NL-9 Nos, Each 1W)**		
1.1	Ensure all LED cable wago coupler connections are properly made		
1.2	Ensure all LED fittings are mounted with proper hardware without any gaps		
1.3	Ensure all LED fitting diffuser covers are provided		
2.	**CHARGING SOCKETS FITTING (30 Nos)**		
2.1	Ensure all CS switch cable connections are properly made		
	Ensure the 1A glass fuse provison in each CS		
2.2	Ensure any switches are not fixed in reverse position		
2.3	Ensure all switch plates are mounted with screws and washers without any gaps		
3.	**AEL FITTING (4 Nos)**		
3.1	Ensure all AEL cable wago coupler connections are properly made		
3.2	Ensure all AEL are mounted with proper hardware without any gaps		
3.3	Ensure the correct orientation of the AEL fittings		
3.4	Ensure all AEL covers are closed with proper hardware		
4.	**BLDC FAN (30 Nos, Each 32W)**		
4.1	Ensure all Fan cable WAGO coupler connections are properly made		
4.2	Ensure the tightness of fan main mounting bolts with washers		
4.3	Ensure the tightness of fan guard mounting bolts with washers		
4.4	Ensure the fitment of guard ring with proper hardware		
5.	**PACIL (2 Nos, Each 3W)**		
5.1	Ensure the cable connections of PACIL		
5.2	Ensure the fitment of PACIL with proper hardware		
5.3	Ensure the application of Water sealant corners of the PACIL		
6.	**LAVATORY LIGHT (4Nos, Each 9W)**		

S. No	ITEM TO BE INSPECTED	RCF OBSERVATION	RITES OBSERVATION
6.1	Ensure all Lavatory light WAGO coupler connection		
6.2	Ensure the tightness of all Lavatory Light		
6.3	Ensure all cables are properly secured		
7.	**EXHAUST FAN (2 Nos, Each 200W)**		
7.1	Ensure the exhaust fan connection with 4 terminal wago connector		
7.2	Ensure all cables are properly secured		
8.	**COMMON POINTS FOR ALL ELECTRICAL EQUIPMENTS**		
8.1	Ensure and all electrical equipment have nameplates indicating ratings as per RCF/RDSO specifications and note down Inventory details		

General remarks (If Any):

CONFIRMING/NON CONFIRMING

RCF Representative Signature with Date		RITES Representative Signature with Date	
Name		Name	

Checksheet-P5

STAGE-IX UNDERFRAME OF LWSCN, LHB NON AC SLEEPER COACH

Variant: LSCN
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

Note- RCF check - 100%, RITES check - 5%.

S. No	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
1.	**750V IV COUPLER AND FEEDER JUNCTION BOX (FJB/FDB- 4 Nos)**		
1.1	Ensure tightness of IV coupler and dummy socket with proper hardware and rubber gasket		
1.2	Ensure IV coupler length is 1535 mm and Safety chain tightness		
1.3	Ensure proper closing of IV socket limit switches		
1.4	Ensure all cables are properly crimped with suitable lugs, mounted using proper head bolts with plain and spring washers, terminal caps are provided, and the cable bending radius is not less than 4D		
1.5	Ensure the securing and connection of C1 and C2 control cables at the wago terminals and provision of end stoppers		
1.6	Ensure the tightness of FDB body earth and PE cable with proper hardware on a non-painted surface		
2.	**EMERGENCY FEEDER TERMINAL (EFT- 4 Nos) & BATTERY CHARGING SOCKET (BCS - 2 Nos)**		
2.1	Ensure the tightness of EFT and BCS box with proper hardware		
2.2	Ensure EFT fixing pad tightness with proper hardware		
2.3	Ensure all EFT and BCS cable crimped with suitable lug and heat-shrink sleeves are provided		
2.4	Ensure the tightness EFT & BCS cables with proper hardware		
2.5	Ensure EFT Terminal Colour coding by paint (Outer side Terminal is +VE, Inner side terminal is –VE)		
2.6	Ensure BCS Colour coding done by paint (RHS terminal is +VE, LHS terminal is –VE)		
2.7	Ensure EFT and BCS doors are properly closed		
3.	**POSITIVE AND NEGATIVE FUSE BOX**		
3.1	Ensure all cable tightness in +VE and -VE fuse box and the bending radius is not less than 4D for the size of cable greater than 25 sqmm		
3.2	Ensure the tightness of both fuse box body earthing with proper hardware		

S. No	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
4.	**BATTERY BOX & BATTERY BANK**		
4.1	Ensure the tightness of inter-cell loop cable connections with proper hardware		
4.2	Ensure the provision of petroleum jelly and terminal caps at all battery terminals		
4.3	Ensure the tightness of Battery Box body earthing with proper hardware		
4.4	Ensure Battery box dummy holes are closed		
5.	**9 KVA TRANSFORMER**		
5.1	Ensure all cables are properly crimped with suitable lugs and mounted using proper head bolt, plain and Spring washer		
5.2	Ensure double earth cables are properly crimped with suitable lugs and mounted using proper hardware on a non-painted surface		
5.3	Ensure Transformer door to be closed with proper bolts and wing nuts		
6.	**WATER RISING PUMP (WRP)**		
6.1	Ensure all cables are properly crimped with suitable lugs and mounted using proper hardware		
6.2	Ensure earth cables are properly crimped with suitable lugs and mounted using proper hardware on a non-painted surface		
6.3	Ensure the terminal covers are closed with proper hardware		
7.	**WHEEL SET EARTHING EQUIPMENT**		
7.1	Ensure both bogie earth cables are properly crimped with suitable lugs and mounted using proper hardware on a non-painted surface		
7.2	Ensure both bogie earth insulator bushes are fixed properly		
8.	**DUMP VALVE**		
8.1	Ensure earth cables are properly crimped with suitable lugs and mounted using proper hardware on a non-painted surface		
9.	**COMMON POINTS FOR ALL ELECTRICAL EQUIPMENTS**		
9.1	Check all Power & earth cable crimping to ensure that (i) no excess cable insulation is removed, (ii) no strands are visible outside, (iii) proper crimping sockets are used, (iv) cable strands are inserted up to the inspection hole and (v) heat shrink sleeves are provided.		

General remarks (If Any):

CONFIRMING/NON CONFIRMING

RCF Representative Signature with Date		RITES Representative Signature with Date	
Name		Name	

Checksheet-P6

STAGE-IX WHEEL SLIDING PROTECTION SYSTEM (WSP) OF LWSCN, LHB NON-AC SLEEPER COACH

Variant: LSCN
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

Note- RCF check - 100%, RITES check - 5%.

S. No	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
1.	WSP unit Make _____ & S.No _____		
2.	Ensure WSP unit 110 V DC input supply fuse ratings (6.3 A, 2 Nos) are provided with identification numbers F63 (+VE) and F65 (-VE)		
3.	Check K-05 Off delay timer relay setting (10 Min) and its performance		
4.	To ensure that when FP pressure is 0 kg/cm², the pressure limit switch does not operate and supply does not reach the WSP microprocessor. As soon as FP pressure rises above 1.8 kg/cm², the pressure limit switch makes contact and supply reaches the microprocessor.		
5.	To ensure the WSP microprocessor will display 99(F)/9999 (K)/9.9 (E & J) which shows system healthy F-FAIVELY, K-KNOOR BREMSE, E-ESCORTS, J-JUPITER		
6.	To ensure WSP microprocessor working are checked by putting fault in sensor cable and dump valve by shorting/opening the wore of sensor cable connection and dump valve connection one by one, fault code showing in display of microprocessor with respect to sensor cable and dump valve should be as per WSP testing format.		
7.	To ensure for clearing of all faults by pressing as per respective microprocessor, microprocessor should display healthy code.		
8.	Check the dump valves. After applying brakes press button S2 (i.e. Test mode) dump valves will operate sequentially.		
9.	To ensure Fault/Activity data recorder function will be checked by downloading data. Date and time of fault/activity verified.		
10.	Check the cable layout of speed sensor as per ICF drawing No. ICF/SK3-3-5-046.		
11.	Check the Mounting Bracket for Junction box as per ICF drawing no. AAD11918, Alt-d and AAA11835, Alt-f		

S. No	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
12.	To ensure that no hole will be found in Junction box.		
13.	To ensure the Air brake wires should be properly connected in panel and in pressure limit switch at air brake unit.		
14.	Check the Ferrule no. as per vendor drawing. Printed-shrinkable ferrule provided.		
15.	Check that the WSP microprocessor panel mounting hardware is properly tightened and fitted		
16.	Ensure that WSP Unit body earthing is connected with proper hardware		
17.	Ensure that WSP wiring is properly dressed and secured with sleeves		

General remarks (If Any):-

CONFIRMING/NON-CONFIRMING

RCF Representative Signature with Date		RITES Representative Signature with Date	
Name		Name	

Checksheet-P7

ELECTRICAL SAFETY CHECKS FOR LWSCN, LHB NON-AC SLEEPER CLASS COACH

Variant: LSCN
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

Note- RCF check - 100%, RITES check - 5%.

S. No	LOCATION/ CIRCUITS	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
1.	Battery & DC circuit	1. Check 40 A HRC fuse in positive box (1 No) & Negative box (2 Nos). 2. Ensure 2Nos of 40A fuses at Battery charging socket (BCS)		
2.	Regulated Battery Charger (RBC)	1. Check the provision of 20A 3 Pole MCB for RBC and 1 Pole 25A MCB for EBC at LV panel. (Note: 3 Pole 20A MCB for RCB and 20A 1 Pole MCB for EBC should be removed from RBC terminal box as per Letter No. EL/7.10.1/LHB Dated: 21-10-2024) 2. Check 40A fuse is provided for coach Load +VE in RBC. 3. Check DC polarity in RBC.		
3.	9 KVA Transformer	Check that HRC fuses are provided with ratings of 20A (Primary-750V), 16A (secondary-415V) and 25A (Tertiary-190V), 3Nos each.		
4	HT panel	1. Ensure 25A Fuses (3Nos) for 415V side, 16A Fuses (3Nos) for 190V side. 2. Ensure F63(+VE) and F65(-VE) glass fuse with ratings of 6.3A (2Nos) for WSP 3. Enusure 2A-1.2KV AC fuses for primary and 2A-500 V AC in secondary (Each 2 Nos) in 100VA control Transformer		
5.	LV Panel	1. Ensure 16A Fuse for Light circuits +VE (L1 & L2) each 1 Nos. 2. Ensure 16A Fuse for FAN circuit +VE 3. Ensure 16A Fuse for EFT circuit +VE 4. Ensure 40A Fuse for L1, L2, Fan, EFT circuits –VE 5. Ensure 6A fuses for AEL circuit (2 Nos) 6. Ensure sort link tightness for PACIL circuit +VE & -VE (Each 1 No)		

S. No	LOCATION/ CIRCUITS	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
		7. Check 1A glass fuses for all LED, Fan, and Alarm Card circuits (both +VE and –VE) at the roof JB		
6.	For Charging sockets	1. Check provision of 6A fuses for CS circuit R, Y, B & N (4 Nos) in LV panel 2. Check 1A glass for each CS		
7.	Lavatory Exhaust fan	Check 2Nos of MPCB with ratings of 0.63-1A in LV panel with set point of 0.63A. (For Set point RDSO guidance required)		
8.	Insulation failure of 110 V AC (CS circuit)	Check Auto and Manual tripping of RCBO in LV panel (4 Pole 16A)		
9.	110V DC IR	Check 110V DC IR with Test lamp with full load on condition		
10.	Aerosol Based FDSS	i) Ensure provision of Each 1 Nos. at LV and HT panel Aerosol based Fire Suppression system with proper fitment and verify their locations ii) Ensure the Aerosol based Fire Suppression system Safety pin status as per the Letter No. EL/7.1.108/MSSBC dated 07.02.2023 FirePro - Safety pin should be removed STATX - Safety pin should not be removed HAFEX - Safety Allen key should be removed. PYROGEN – Not Applicable DSPA BV - Not Applicable iii) Ensure the Action Temperature setting as 68-72 deg C as per Letter No. EL/7.1.108/SBC/MAIN dated 06.08.2025		

General remarks (If Any): -

1) As per 9KVA Transformer RDSO Specification No RDSO/PE/SPEC/TL/0158-2010 (Rev.1) 415V circuit and 190V side fuses are 16A, 25A. However, Set of panel specification EDTS-355, Rev-1 mentioned as 25A, 16A fuses respectively for the same circuit. (Confirmation required from RCF/RDSO)

CONFIRMING/NON-CONFIRMING

RCF REPERESENTATIVE SIGNATURE & DATE		RITES REPERESENTATIVE SIGNATURE & DATE	
NAME		NAME	

Checksheet-P7

FUNCTIONAL TEST FOR LHB LSCN NON-AC SLEEPER COACH

Variant: LSCN
Coach / Shell No.:
Date/ Dates:
Locations:
Name of RITES inspector:
Name of RCF officials:

Note- RCF check - 100%, RITES check - 5%.

<table>
<tr><th>S. No</th><th>CHECK POINTS</th><th>RCF OBSERVATION</th><th>RITES OBSERVATION</th></tr>
<tr><td>1</td><td colspan="3">CABLE CONTINUITY</td></tr>
<tr><td>1.1</td><td>Check Continuity test of all cables connected at the RCF shop floor</td><td></td><td></td></tr>
<tr><td>2</td><td colspan="3">INSULATION RESISTANCE TEST</td></tr>
<tr><td>2.1</td><td>Refer RCF Work Instructions No. EDW 0024 Ver 1.0 dt. 09.06.2025.

Group and sort the cables as per the voltage range
<table>
<tr><th>S. NO</th><th>CABLE CIRCUIT VOLTAGE</th><th>MEGGERING VOLTAGE</th><th>ACCEPTABLE INSULATION VALUE</th><th>OBSERVED VALUE IN MΩ (BEFORE HV)</th><th>OBSERVED VALUE IN MΩ (AFTER HV)</th></tr>
<tr><td>1</td><td>750 V AC</td><td>1000V DC</td><td>≥ 5 MΩ</td><td></td><td></td></tr>
<tr><td>2</td><td>415 V AC</td><td>500 V DC</td><td>≥ 3 MΩ</td><td></td><td></td></tr>
<tr><td>3</td><td>230 V AC</td><td>500 V DC</td><td>≥ 2 MΩ</td><td></td><td></td></tr>
<tr><td>4</td><td>190 V AC</td><td>500 V DC</td><td>≥ 2 MΩ</td><td></td><td></td></tr>
<tr><td>5</td><td>110 V AC</td><td>500 V DC</td><td>≥ 2 MΩ</td><td></td><td></td></tr>
<tr><td>6</td><td>24 V DC</td><td>500 V DC</td><td>≥ 2 MΩ</td><td></td><td></td></tr>
<tr><td colspan="6">Insulation resistance values measured immediately after the high voltage tests shall not be less than the original value</td></tr>
</table></td><td></td><td></td></tr>
<tr><td>3</td><td colspan="3">HIGH VOLTAGE (HV) TEST</td></tr>
<tr><td>3.1</td><td>Refer RCF Work Instructions No. EDW 0024 Ver 1.0 dt. 09.06.2025.

Perform the HV test ensuring that after Megger values are satisfactory
<table>
<tr><th>S.NO</th><th>CIRCUIT CABLES</th><th>APPLIED HV VOLTAGE FOR 60 SEC</th></tr>
<tr><td>1</td><td>750V AC</td><td>2.5 KV</td></tr>
<tr><td>2</td><td>415V AC</td><td>1.8 KV</td></tr>
<tr><td>3</td><td>230V AC</td><td>1.5 KV</td></tr>
<tr><td>4</td><td>190V AC</td><td>1.4 KV</td></tr>
<tr><td>5</td><td>110V AC</td><td>1.2 KV</td></tr>
<tr><td>6</td><td>110V DC</td><td>1.2 KV</td></tr>
</table></td><td></td><td></td></tr>
</table>

<table>
<tr><th>S. No</th><th>CHECK POINTS</th><th>RCF OBSERVATION</th><th>RITES OBSERVATION</th></tr>
<tr><td>4</td><td colspan="3">110V DC CIRCUITS</td></tr>
<tr><td>4.1</td><td>Check L1 Circuit with NL performance with rotary control
Check L1 Circuit Full Load Current - _____A</td><td></td><td></td></tr>
<tr><td>4.2</td><td>Check L2 Circuit Performance with rotary control
Check L2 Circuit Full Load Current- _____A</td><td></td><td></td></tr>
<tr><td>4.3</td><td>Check Fan performance with Rotary control
Check Fan Circuit Full Load Current- _____A</td><td></td><td></td></tr>
<tr><td>4.4</td><td>Check All FL, NL, Fan and Lavatory Lights individual Switch control</td><td></td><td></td></tr>
<tr><td>4.5</td><td>Check AEL performance with AEL Test Push Button</td><td></td><td></td></tr>
<tr><td>4.6</td><td>Check Alarm card and PACIL performance</td><td></td><td></td></tr>
<tr><td>4.7</td><td>Check Pump controller Auto & Manual Performance</td><td></td><td></td></tr>
<tr><td>4.8</td><td>Check EFT & BCS 110V DC Supply and their Polarity</td><td></td><td></td></tr>
<tr><td>4.9</td><td>Check K05 Relay setting (10 Min) and its performance</td><td></td><td></td></tr>
<tr><td>4.10</td><td>Check All Flusher Unit Input supply & Polarity</td><td></td><td></td></tr>
<tr><td>4.11</td><td>Ensure 110V DC circuits are free from insulation failure by using a test lamp</td><td></td><td></td></tr>
<tr><td>5</td><td colspan="3">750V & 415V CIRCUIT TEST</td></tr>
<tr><td>5.1</td><td>Check Disconnecting & Earthing Device (D&ED) Performance</td><td></td><td></td></tr>
<tr><td>5.2</td><td>Check MMR Relays (S1K03 & S1K04) Setting & Its performance</td><td></td><td></td></tr>
<tr><td>5.3</td><td>Check 100VA (750V/110V) TRANSFORMER PERFRORMANCE</td><td></td><td></td></tr>
<tr><td>5.4</td><td>Net -1 (S1K01) & Net- 2 (S1K02) performance as per the sequence table
<table>
<tr><th>750V SUPPLY</th><th>D&ED POS</th><th>PS POS</th><th>FS POS</th><th>CHECK K01</th><th>CHECK K02</th></tr>
<tr><td>NET 1</td><td>ON</td><td>ON</td><td>NET 1</td><td>ON</td><td>OFF</td></tr>
<tr><td>NET 1</td><td>ON</td><td>ON</td><td>NET 2</td><td rowspan="4">OFF</td><td rowspan="4">OFF</td></tr>
<tr><td>NET 1</td><td>ON</td><td>ON</td><td>OFF</td></tr>
<tr><td>NET 1</td><td>ON</td><td>OFF</td><td>NET 1/ 2</td></tr>
<tr><td>NET 1</td><td>OFF</td><td>ON</td><td>NET 1/2</td></tr>
<tr><td>NET 2</td><td>ON</td><td>ON</td><td>NET 2</td><td>OFF</td><td>ON</td></tr>
<tr><td>NET 2</td><td>ON</td><td>ON</td><td>NET 1</td><td rowspan="4">OFF</td><td rowspan="4">OFF</td></tr>
<tr><td>NET 2</td><td>ON</td><td>ON</td><td>OFF</td></tr>
<tr><td>NET 2</td><td>ON</td><td>OFF</td><td>NET 1/2</td></tr>
<tr><td>NET 2</td><td>OFF</td><td>ON</td><td>NET 1/2</td></tr>
</table>
D&ED POS – Disconnecting and Earthing Device Position
PS POS- Power supply ON/OFF Rotary Position
FS POS- Feeder Selector Rotary Switch POS</td><td></td><td></td></tr>
<tr><td>5.5</td><td>Check 9KVA Transformer Voltage and Full Load Current
<table>
<tr><th>TERMINALS</th><th>PRIMARY (V)</th><th>SECONDARY (V)</th><th>TERTIARY (V)</th></tr>
<tr><td>RY</td><td></td><td></td><td></td></tr>
<tr><td>YB</td><td></td><td></td><td></td></tr>
<tr><td>BR</td><td></td><td></td><td></td></tr>
</table></td><td></td><td></td></tr>
</table>

<table>
<tr><th>S. No</th><th>CHECK POINTS</th><th>RCF OBSERVATION</th><th>RITES OBSERVATION</th></tr>
<tr><td></td><td>
<table>
<tr><td>RN</td><td></td><td></td><td></td></tr>
<tr><td>YN</td><td></td><td></td><td></td></tr>
<tr><td>BN</td><td></td><td></td><td></td></tr>
<tr><td>RE</td><td></td><td></td><td></td></tr>
<tr><td>YE</td><td></td><td></td><td></td></tr>
<tr><td>BE</td><td></td><td></td><td></td></tr>
<tr><td>NE</td><td></td><td></td><td></td></tr>
<tr><td colspan="4">FULL LOAD CURRENT (A)</td></tr>
<tr><td>R</td><td></td><td></td><td></td></tr>
<tr><td>Y</td><td></td><td></td><td></td></tr>
<tr><td>B</td><td></td><td></td><td></td></tr>
<tr><td>N</td><td></td><td></td><td></td></tr>
</table>
</td><td></td><td></td></tr>
<tr><td>5.6</td><td>Check 415V & 190V AC RC FILTER PERFORMANCE (Ensure the N-E voltage should be less than 5V)</td><td></td><td></td></tr>
<tr><td>5.7 a</td><td>Check RBC Cum EBC performance
<table>
<tr><th>MODE</th><th colspan="2">AC INPUT SUPPLY (V)</th><th>DC OUTPUT (V)</th><th>BATTERT CHARGING CURRENT (A)</th><th>COACH LOAD (A)</th></tr>
<tr><td rowspan="3">RBC</td><td>RY</td><td></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td></tr>
<tr><td>YB</td><td></td></tr>
<tr><td>BR</td><td></td></tr>
<tr><td>EBC</td><td>RN</td><td></td><td></td><td></td><td></td></tr>
</table>
</td><td></td><td></td></tr>
<tr><td>5.7 b</td><td>Check RBC Performance control with S1F160 3P 20A MCB</td><td></td><td></td></tr>
<tr><td>5.7 c</td><td>Check EBC Performance control with S1F170 1P 25A MCB</td><td></td><td></td></tr>
<tr><td>5.7 d</td><td>Check mode change from RBC to EBC and from EBC to RBC</td><td></td><td></td></tr>
<tr><td>5.7 e</td><td>Check 40A Coach Load fuse control</td><td></td><td></td></tr>
<tr><td>5.7 f</td><td>Check RBC LED’s performance</td><td></td><td></td></tr>
<tr><td>5.7 g</td><td>Check +VE & -VE Earth Leakage</td><td></td><td></td></tr>
<tr><td>5.7 h</td><td>Check RBC OK, EBC ON and Battery not healthy LED indication at LV panel (As per Letter No. EL/7.10.1/LHB Dated 20.11.2024)</td><td></td><td></td></tr>
<tr><td>6</td><td>Check Water Rising Pump (WRP) Set position and performance
i) RHS – WRP 1 control through S1K24 Contactor and S1F21 MPCB
ii) LHS –WRP 2 control through S1K25 Contactor and S1F22 MPCB
iii) Note down the Load Current
<table>
<tr><th>CURRENT (A)</th><th>R</th><th>Y</th><th>B</th></tr>
</table>
</td><td></td><td></td></tr>
</table>

S. No	CHECK POINTS	RCF OBSERVATION	RITES OBSERVATION
	WRP 1 / **WRP 2**		
7	**190V & 110V AC CIRCUIT TEST**		
7.1	i) Check Exhaust Fan Performance with MPCB control S1F85 for Ex. Fan 1 and S1F86 for Ex. Fan 2 ii) Note down the Load Current		
7.2 a	Check Charging socket supply 110V AC control through Mobile charging Socket (MCS) ON/OFF Rotary and RCBO in LV panel		
7.2 b	Check the supply at each Charging Socket with its individual switch control and local LED indication		
7.2 c	Check RCBO tripping by sorting each Charging Socket earth terminal to coach body with a test lamp, one by one.		
8	**ILLUMINATION TEST**		
8.1	illumination (uniformity and lux measurement) Test as per as per RDSO spec RDSO/PE/SPEC/TL/0091-2016 (REV-1). The voltage during the test shall be maintained at 110V with a tolerance of +0/-3V**.** The test shall be conducted as per Annexure-1 and in accordance with Clauses 6.12 and 6.13 of the specification no. RDSO/PE/SPEC/TL/0091-2016 (REV-1). Refer RCF Work Instructions No. EDW 0032 Ver 1.0 dt. 05.08.2025. **- To be performed on one coach per variant only.**		
9	**OTHER POINTS**		
9.1	Check and record Temperature Rise by Thermal imaging of LV & HT panel in Annexure A		
9.2	Note the Inventory details in Annexure B.		

CURRENT (A)	R	Y	B
EX. FAN 1			
EX. FAN 2			

Additional Remarks (if any)

RCF Representative Signature with Date		RITES Representative Signature with Date	
Name		Name	

ANNEXURE A of FUNCTIONAL TEST FOR LHB LSCN NON-AC SLEEPER COACH

ANNEXURE A

THERMAL IMAGING FOR LWSCN, LHB NON-AC SLEEPER COACH

(Ref Letter No: EL/7.1.108/SBC/Main Dated 26-11-2024)

COACH NO	DATE	MEASURED BY

S. NO	ID. NUMBER	DESCRIPTIONS	AMPIENT TEMPERATURE IN °C	TEMPERATURE AFTER THE 30 MIN OF FULL LOAD IN °C		TEMPERATURE RISE IN °C		REMARKS (ACCEPTABLE TEMP RISE IS ≤25 °C)
				AT BODY	AT TERMINAL	AT BODY	AT TERMINAL	
1	S1F50	25A Fuse (Net-1) R						
2	S1F51	25A Fuse (Net-1) Y						
3	S1F52	25A Fuse (Net-1) B						
4	S1F53	25A Fuse (Net-2) R						
5	S1F54	25A Fuse (Net-2) Y						
6	S1F55	25A Fuse (Net-2) B						
7	S1K01	Net-1 contactor R						
8		Net-1 contactor Y						
9		Net-1 contactor B						
10	-	Net-1 Neutral						
11	S1K02	Net-2 contactor R						
12		Net-2 contactor Y						
13		Net-2 contactor B						
14	-	Net-2 Neutral						
15	S1F44	Fuse of 415V R						
16	S1F45	Fuse of 415V						

S. NO	ID. NUMBER	DESCRIPTIONS	AMPIENT TEMPERATURE IN °C	TEMPERATURE AFTER THE 30 MIN OF FULL LOAD IN °C		TEMPERATURE RISE IN °C		REMARKS (ACCEPTABLE TEMP RISE IS ≤25 °C)
				AT BODY	AT TERMINAL	AT BODY	AT TERMINAL	
		Y						
17	S1F46	Fuse of 415V B						
18	S1F47	Fuse OF 190V R						
19	S1F48	Fuse OF 190V Y						
20	S1F49	Fuse OF 190V B						
21	S1K24	WRP 1 contactor R						
22		WRP 1 contactor Y						
23		WRP 1 contactor B						
24	S1K25	WRP 2 contactor R						
25		WRP 2 contactor Y						
26		WRP 2 contactor B						
27	S1F21	WRP 1 MPCB R						
28		WRP 1 MPCB Y						
29		WRP 1 MPCB B						
30	S1F22	WRP 2 MPCB R						
31		WRP 2 MPCB Y						
32		WRP 2 MPCB B						
33	S1F85	EX. Fan 1 MPCB R						
34		EX. Fan 1 MPCB Y						
35		EX. Fan 1 MPCB B						
36	S1F86	EX. Fan 2 MPCB R						
37		EX. Fan 2						

S. NO	ID. NUMBER	DESCRIPTIONS	AMPIENT TEMPERATURE IN °C	TEMPERATURE AFTER THE 30 MIN OF FULL LOAD IN °C		TEMPERATURE RISE IN °C		REMARKS (ACCEPTABLE TEMP RISE IS ≤25 °C)
				AT BODY	AT TERMINAL	AT BODY	AT TERMINAL	
		MPCB Y						
38		EX. Fan 2 MPCB B						
39	CS-R 6A	Fuse of CS circuit R						
40	CS-Y 6A	Fuse of CS circuit Y						
41	CS-B 6A	Fuse of CS circuit B						
42	CS-N 6A	Fuse of CS circuit N						
43	L1	16A Fuse L1 +VE						
44	L2	16A Fuse L2 +VE						
45	FAN	16A Fuse Fan +VE						
46	DC -VE	40A Fuse -VE						

Additional Remarks (if any)

RCF Representative Signature with Date		RITES Representative Signature with Date	
Name		Name	

ANNEXURE B of FUNCTIONAL TEST FOR LHB LSCN NON-AC SLEEPER COACH

INVENTORY OF ELECTRICAL EQUIPMENTS (LHB LSCN NON-AC SLEEPOACH)		
COACH NO	**DATE**	**NOTED BY**

SL NO	DESCRIPTION OF ITEM	MAKE	SERIAL NO	QUANTITY
1	LV PANEL			1
2	HT PANEL			1
3	WSP UNIT			1
4	RBC CUM EBC			1
5	9 KVA TRANSFORMER			1
6	LIGHT FITTING (LED)			26
7	LAVATORY LIGHT (LED)			4
8	NL LIGHT			9
9	110 V LAPTOP CHARGING SOCKET			30
10	IV COUPLER & SOCKET			2 SET
12	FEEDER JUNCTION BOX			4
13	AEL			4
14	PACIL ALARM			10
15	PACIL LIGHT			2
16	WHEEL SET EARTHING EQIPMENT			2
17	110 V, 120 AH BATTERY BANK		LUG DATE:	1 SET
18	BATTERY BOX			1
19	POSITIVE FUSE BOX			1
20	NEGATIVE FUSE BOX			1
21	EFT			4
22	BCS			2
23	FAN			30
24	WRP CONTROLLER			1
25	WRP SET			1 SET

Additional Remarks (if any)

RCF Representative Signature with Date		RITES Representative Signature with Date	
Name		Name	

Checksheet-P8

Calibration record and Competency Check

1. Training and Competency Matrix for manpower deployed -Check if staff deployed for Model rake in each section has necessary Training and competency and record in format below-

S. No.	Name of Supervisor/ Technician	Section	Training & Competency on Crimping as per scheme recommended vide RITES letter No. RITES/RCF/Safety Audit/24 dated 16.07.2025 - Imparted/ Not Imparted	Training on Manufacturing & Testing Revised check list imparted/ not imparted

2. Check the validity of Calibration certificates of Testing instruments used in Stage and Final Testing. No Testing results to be accepted if all instruments used in preparation of Model rake are not calibrated.

S. No.	Section / Shop	Name of Test instrument used for Stage/ Final Testing	Calibration Certificate due date	Calibration Certificate Valid/ Expired
1				
2				
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3. Check compliance of following clauses of Work Instruction for Crimping of Cable Ends and Cable Terminations EDW 0006:

SN	Clause No.	Description	Operative part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
1	3.1.6	Insulation shall be removed with proper tool and not with knife or chipper	Check proper Tool is being used for insulation removal.		
2	3.1.14	Crimp with appropriate calibrated crimping tool and die with set value of torque defined in annexure-I to EDTS-201 (latest) and EDTS-200 (latest). The cross-sectional area marked on the	Check whether proper crimping tool is being used for insulated and non-insulated terminal.		

SN	Clause No.	Description	Operative part of relevant clause	RCF Observations	RITES Observations (Accepted / Rejected)
		recommended die should match the cable. It is to be noted that the cable shall be Thin-Walled Flexible Elastomeric cables with copper conductors to RDSO specification no. ELRS/SPEC/ELC/0019, (Rev.4) or Latest "Only the correct socket, die and crimping tool will ensure reliable joint".			

RCF REPERESENTATIVE SIGNATURE & DATE		RITES REPERESENTATIVE SIGNATURE & DATE	
NAME		NAME	