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No: PW/MCS/WS/Timber Trail Ropeway/2022-23/ 32 30-38 Dated 10/1/25

To

The Principal Secretary, Govt .Of Himachal Pradesh Shimla-171002

Subject: Annual Inspection of Aerial Passenger Ropeway at Parwanoo.

It is submitted that annual inspection of subject cited ropeway was carried out by the ropeway expert committee on 18-12-2024. The minutes of inspection conducted by the ropeway expert committee are enclosed herewith for favour of kind information please.

DA : As above.

Chairman Ropeway Expert Committee -cum-Superintending Engineer, Mechanical Circle, HPPWD, Dhalli-12

Copy forwarded to followings for necessary action and information please.

The Engineer-in-Chief,HPPWD,Shimla-2.

2. The Chief Engineer HPPWD, Shimla-2.

- 3. The Superintending Engineer 3rd Circle, HPPWD, Solan.
- 4. The Superintending Engineer Electrical Circle ,Kasumpti-9.
- 5. The Ropeway Inspector-cum- Executive Engineer, Mechanical Divn, HPPWD, Dhalli- He is further requested to ensure the compliance of the necessary corrective measures from the promoter.
- 6. The Executive Engineer B&R Divn, HPPWD, Kasauli.
- 7. M/S Asia Resorts PVT.Ltd. Timber Trail Parwanoo,Distt,Solan. & the promoter is further requested to take corrective measures as per the report at once and with intimation of the same to the committee.
- 8. The IT Section ,Nirman Bhan,HPPWD,Nigam Vihar Simla-2-further requested to please upload/publish/display the copy of the report on the Departmental web/portal.

Chairman Ropeway Expert Committee -cum-Superintending Enginder, Mechanical Circle, HPPWD, Pholli-12

MINUTES OF INSPECTION OF TIMBER TRAIL ROPEWAY AT PARWANOO DISTT SOLAN (HP) CONDUCTED BY THE EXPERT COMMITTEE ON DATED: 18.12.2024

The expert committee of the follwoig officers has carried out the inspection of the Timber Trail ropeway Parwanoo, Solan (HP) on dated: 18.12.2024,

1.	Er. C.D. Thakur, Superintending Engineer, Mechanical Circle,	Chairman
	HP.P.W.D Dhalli, Shimla-12.	
2.	Er. Rakesh Kumar, Superintending Engineer, Electrical Circle,	Member
	HP.P.W.D, Kasumpati, Shimla-9	
3.	Er. Ajay Sharma, Superintending Engineer, 3 rd Circle, HP.P.W.D	Member
	Solan	
4.	Dr. Yashwant Singh Negi, Inspector Ropeways cum Executive Engineer,	Member
	Mechanical Division, HP.P.W.D, Dhalli, Shimla-12	
5.	Er. Gurminder Singh, Executive Engineer, B&R Division,	Member
	HP.P.W.D, Kasauli.	

The expert committee examined in detail the above ropeway and the observations made by the expert committee are as under:

1. RECORD OF MAINTENANCE ACTIVITIES:

The Inspection of the above ropeway was carried out by the Ropeway Expert committee on dated: 18.12.2024 and first of all maintenance registers were checked. It was apprised to the committee that daily routine maintenance is carried out between 7:00 AM to 9:00 AM and after daily routines maintenance, trail run is carried out, thereafter the system is allowed for carriage of passengers. Visual inspection of haulage ropes is carried out daily. All maintenance activities out are recorded properly in maintenance log book.

2. TRACK ROPES, HAULAGE ROPES AND ROPE TENSIONING DEVICE AND ITS ALLIED ACCESSORIES:

N.D.T tests of haulage ropes, Track Ropes and rope tensioning device was conducted and found satisfactory. The detail is as follows:

Sr. No.	Description of Items	Date of NDT	Agency	Validity	Results
1	Haulage Ropes	26.11.2024	C.I.M.F.R	Recommended	Found
1			Dhanbad	till May, 2025	Satisfactory
2	Track Ropes	17.04.2024 &	C.I.M.F.R	Recommended	Found
2		19.04.2024	Dhanbad	till April, 2025	Satisfactory

As per the report the rope system is found satisfactory and can be continued in services. They have also recommended/certified for commercial operation as mentioned above.

3. MAIN DRIVE SYSTEM, ELECTRICAL SYSTEM, BRAKE SYSTEM, AND STRUCTURE

Main drive System:

The main drive system such as DC Motor, Gear Box and generator were all checked and found in good condition.





DC DRIVE MOTOR

MAIN DRIVE SHAFT

Mechanical System:

The NDT tests of all the vital components such as Main drive sheave, main drive shaft, all sheaves, upper/ lower station structures, hangers, cabins etc. was conducted by M/s SARRC Test House, Faridabad on dated 21.08.2024 and 22.08.2024 and all vital components has been found satisfactory as per their test report. Also, the recommendation of the test report is for six months and valid till Feb, 2025.

Electrical System and Fire Fighting System:

The Electrical and Electronic components have been tested and checked by M/s Prithvi Power Engineers Pvt. Ltd. on dated 20.11.2024 and the performance has been found satisfactory. The next testing of these components is due in May, 2025.

The DC drive panel was checked for its various operations and the performance was found satisfactory and its test report is valid up to May, 2025. The testing of main console Panel, PLC and AC drive was checked and found in satisfactory working condition. The same has been maintained by M/s Prithvi Power Engineers Pvt. Ltd. and has been certified safe up to May, 2025.

Lighting arrestor & connected earthing system is also found in safe working condition.

The first aid fire-fighting measures adopted by the aforesaid ropeway were inspected by the representatives of Department of Fire Services and a No Objection Certificate was issued regarding the same by the Chief Fire Officer, Shimla valid upto 29.08.2025. Also, fire extinguisher equipments were checked and found in order during the inspection of the Expert Committee.

Rescue Engine:

The Ropeway System was operated with rescue engine and rescue engine motor respectively and was found working properly.



RESCUE ENGINE

• Diesel Generating Set:

The Diesel Generating set was started, checked by operating the ropeway on DG set upto a distance of 100 m at a speed of 3.14 m/s and its performance was found to be satisfactory.

<u>AC Motor:</u>

The ropeway was tested to work on AC motor was found to be working satisfactorily.



A.C. MOTOR

<u>Civil Structure:</u>

All the civil structure (Concrete/steel) tests were conducted by M/s SAARC Test House, Faridabad on 21.02.2024 in the presence of A.E. HPPWD Parwanoo and the strength of concrete anchor block was found okay and these reports are valid till February, 2025. The committee also inspected the structure and no visual cracks were found and civil structure was found in good condition.

• Brake system:

Committee inspected the emergency brake system & service brake system on live load at a distance of 480 m and found to be working satisfactorily.

4. LIVE RESCUE:

A Live Rescue was carried out in the presence of Expert Committee by taking the cable car to a distance of 60 m, at a height of approximately 100 m and passenger (cabin staff) was rescued successfully.



LIVE RESCUE OF A PASSANGER (Staff)

5. JOINT MOCK EXERCISE:

The promoter also ensured that a Joint Mock Exercise was conducted twice during the current year in the month March and on dated 09.09.2024 by the NDRF Team of 14th Bn NDRF with Timber Trail Resorts, Parwanoo along with a total of members of DDMA office, DPRO, Tehsil Office, Health Department, Fire and Home Guard Deptt., Ropeway staff regarding rescue operations in the ropeway.

CORRECTIVE MEASURES TO BE TAKEN:

- The regular inspection as well as observance of all the moving parts (critical) and drive systems including coupling and keys and cotters etc. must be periodically examined and replaced wherever any flaws are observed.
- The maintenance of deflection sheaves or liners must be checked for observance of derailment of ropes and damages of sheaves.
- The design of additional auxiliary unit for the main drive sheave must be produced by the promoter as soon as possible as there haven't been received any reporting from PEC Chandigarh till now.
- The provision of DC Drive into AC Drive also must be timely provisioned by the promoter in this ropeway.
- The next NDT tests of vital components must be conducted well before due date positively.
- The on-load testing of D.G. set and Rescue Engine data must be recorded in Log Book daily.
- The manuals pertaining to maintenance schedule of electrical/ electronic/communication equipment must be shared time to time.
- The earthing at few places was found to be terminated without thimbles. Therefore, wiring cum earthing system must be masked so as to prevent the current leakage etc.
- The drive parameters of various electrical drives and their overload limits be communicated.
- Insulation/Masking of thimbles should be done properly.
- The height of the lighting arrestor column must be raised to 3m minimum at towers and receiving station.
- Lighting arrestor and connected earthing system must be tested report to be submitted to the committee. The system earthing should be checked and results to be noted weekly.
- There must be effective use of D.G. set in stabilizing the working range of voltage and rescue operation also be carried out by use of D.G. set.
- Any abnormality if noticed in the structures, Electro-mechanical system will be immediately intimated by the promoter to the Ropeway Inspector/ Ropeway Expert Committee.

- Insulation testing of power cable shall be carried at least once in a six-month period and report be submitted.
- All earthing shall be tested for its resistance values at least half yearly.
- The track rope idlers and the alignment of haulage system alongwith the variations in sag of the track ropes proportional to the cabin weights must everyday be visualized.
- The operating staff engaged in ropeway operation must have specified uniforms.
- During the rescue operations the patience of aidees and the rescuer (staff) needs to be developed to the comfortability of situation and soothing to the passangers.
- All hooks, ropes, sling and fasteners must be patiently adjusted and checked well prior making such rescue operations at the maximum height from the ground level.

CONCLUSION:-

From the above drive tests, traversing of cabins (to and fro), different modes of power drives earthing system, haulage system, brake system, control system, the counter weights etc. and details of various test reports the ropeway has been observed fit for passengers carriage subject to attentiveness of future maintenance to up keep the ropeway as per the standard SOPs and codes.

Er. Gurminder Singh Executive Engineer B&R Division HP.P.W.D, Kasauli

(Member)

Er. Ajáy Sharma Superintending Engineer 3rd Circle (B&R) HP.P.W.D, Solan (Member)

Dr. Yashwant Singh Negi Inspector Ropeways-cum Executive Engineer Mechanical Division HP.P.W.D, Dhalli, Shimla-12 (Member)

Er. Rakesh Kumar Superintending Engineer Electrical Circle HP.P.W.D, Kasumpati, Shimla-9 (Member)

Er. C.D. Thakur Superintending Engineer Mechanical Circle HP.P.W.D Dhalli, Shimla-12 (Chairman)