भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2021/M(C)/137/2WILD

(E-Office No. 3371645)
New Delhi, dated 25.10.2021

Director General
RDSO/LKO

PCMEs,
All Zonal Railways

Sub: Repeated critical alarm on WILD.
Ref.: WCR letter no.WCR/M/N/03/251(A) VOL-III dated 28.09.2021.

Vide letter under reference WCR has communicated that 03 times critical alarms were recorded at Powerkheda (ET) WILD in the same coach LWSCN No.-191356 during 4th sep-21 to 20th sep-21 and it is also observed that at all the three times of secondary maintenance wheel were found skidded/shelled.

In this context, RDSO has all ready issue instruction to examine all types of possible causes for generation of Critical alarm by WILD in rolling stocks vide there letter no R2/171/WILD/Rlys/Vol.-XII dated 16.07.2021 (copy enclosed).

In view of above, it is advised to examine the cases of critical alarm reported through WILDs, OMRSs and OBCMS installed in coaches and accordingly to submit details of action taken in all such cases observed in last 06 Months.

The above report may please be submitted to RDSO on priority. RDSO is further advised to submit a consolidated report.

D.A- As above.

(सुमन कुमार तांती)
निदेशक / यांत्रिक इंजी. को.
रेलवे बोर्ड

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प्रमुख मुख्य यांत्रिक इंजीनियर
Principal Chief Mechanical Engineer

No. WCR/M/N/03/251(A) VOL-III

Dt.28.09.2021

PCME/NER
Gorakhpur

Sub:- Repeated critical alarm on WILD in Train No.05065

Three WILD (Wheel Impact Load detector) system of M/s Apna Technologies & Solutions are installed at three locations of WCR to detect impact of wheel train vehicles on rail. Critical alarm is generated on the WILD system while impact load exceeds ILF ≥ 4.5 or maximum Dynamic Load ≥ 35T .

It has been observed that 3 critical alarms recorded at Powerkheda (ET) WILD in Train No.05065 in the same coach LWSCN No.191356 from 4th Sep-21 to 20th Sep-21. Details of the critical alarms are annexed.

It is observed that out of 3 critical alarms, every time in secondary maintenance found skidding/shelling in wheel.

In view of above, it is requested to properly examine all types of possible causes in rolling stocks as mentioned in RDSO letter No.R2/171/WILD/Rlys/Vol.-XII dated 16.07.2021, that not only reduces critical alarm on the WILD system but also to improve riding quality and safety.

DMS/Cig
R2
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This is for kind information.

Encl.: As above.

RAVI SHANKER SAXENA
Digitally signed by RAVI SHANKER SAXENA
Date: 2021.09.28 15:41:53 +05'30'

(R. S. Saxena)
PCME/ WCR / JBP

C/-
EDME(Chg.)/Railway Board,
EDME(Frt.)/Railway Board,
ED(Carriage)/RDSO/Lucknow
} For information please.

W.C.R.

S.No	Date & Time	Axle No.	Maximum Dynamic Load Left	Maximum Dynamic Load Right	Impact Load Factor Left	Impact Load Factor Right	Rolling Stock Zone code	Rolling Stock Type	Rolling Stock Number	Diagnosis	Action Taken
1	04-09-2021 02:22:24	63	37.4	19.8	4.2	2.5	NER	LWSCN	191356	Examined at ET, found no defect. Examined at PNVL, skidded same allowed. Examined at GKP, found no defect.	ALLOWED TO RUN
2	08-09-2021 02:20:46	63	18.9	29.4	2.4	4.7	NER	LWSCN	191356	Examined at ET, found no defect. Examined at PNVL during terminating, found wheel no.1 & 2 skidded same allowed. & Examined at GKP during primary maintenance, found no defect same allowed	ALLOWED TO RUN
3	13-09-2021 02:00:48	63	23.4	31.3	2.9	4.9	NER	LWSCN	191356	Examined at ET, found old skidding marks. Coach checked at PNVL, during terminating and found wheel shelling but same allowed in permissible. Coach detached at primary maintenance depot GKP for Wheel shell tread.	DETACHED AT DEPOT

W.C.R.

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Government of India, Ministry of Railways
Research Designs & Standards Organisation
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No. R2/171/WILD/Rlys/Vol.-XII

Date: 16.07.2021

Principal Chief Mechanical Engineer
All Indian Railways

Sub.: Possible causes for generation of Critical Alerts by WILD/WCM system.
Ref.: CRSE/Freight/NCR letter no. NCR/Mech./826/part-12/wild dated 28.06.2021.

A reference has been received from CRSE/Freight/NCR regarding issue of a comprehensive list of items to be checked during critical alarm in the light of all rolling stock LHB, ICF, Wagon etc.

As per feedback received from railways, it has been noticed that when an alarm is generated by Wheel Impact Load Detector (WILD), the TXR staff either exclusively or primarily checks the wheel. It is pointed out that, since the alarm is generated because of high impact, the alarm may not only be generated due to flat spot on wheel but may be due to other causes also. Based on feedback received from WILD users a comprehensive list of possible causes has been prepared and enclosed as Annexure-I for reference.

Therefore, it is advised that if a critical alarm is generated, the TXR staff may be instructed to examine all types of possible causes in rolling stocks as mentioned in annexure-I. In case alarm gets generated due to loco defects, the concerned TXR control should refer matter to loco control office for necessary action.

Encl.: as above

16.7.21

(Sanjeev Garg)
Director Research Mechanical

Distribution: As per annexure-II

Annexure-I

List of Possible causes for generation of Critical Alerts by WILD/WCM system:

Freight rolling stocks:

- Wheel defects as per IRCA Part-III & CMIK 003.
- EM pad perished.
- Bolster shifted/Bolster tilted/Bolster liner plate worn out.
- Top pivot bolt slack.
- Brake beam hanging/Brake beam safety plate shifting and rubbing on the same wheel set.
- PU/CC/EM pad shifted/pressed/perished.
- CC housing broken.
- S/bearer roof/Friction liner welding open.
- Friction linear broken.
- Snubber spring broken.
- DV isolated.
- Axle box Grease oozing.
- Uneven loading.
- Abnormal sound from axle box/ hot axle.
- Defect in suspension.

ICF Coaches:

- Wheel defects as per IRCA Part-IV & CMIK 003.
- Dashpot oil leakage.
- End connecting rod missing.
- Flexi coil spring broken
- Brake block broken.
- Crown clearance zero due to heavy crowd.
- Trolley shifted.
- Broken/workout equalizing stay.
- Abnormal sound from axle box/ hot axle.
- Defect in suspension.

LHB Coaches:

- Wheel defects as per IRCA Part-IV & CMIK 003.
- Inner/outer axle spring broken.
- Oil leakage from Lateral/vertical/Yaw dampers.
- Defect in suspension system (Inner/outer)
- Air spring should not in deflated condition.
- Control arm should be intact properly
- All components of primary suspension (Rubber pad, rubber spring and ring) should be in intact position.
- Defect in steel coil spring and rubber spring of secondary suspension system.
- Abnormal sound from axle box/ hot axle.