## Consultation comments received on GMGN2571 Storage and Recommissioning of Rail Vehicles

## Closing date 22 December 2021

- 1. Roger Deuce, Alstom (Personal comments)
- 2. David Warwick, Network Rail (Independent View)
- 3. Peter Hubbard, c2c
- 4. Mick Whelan, ASLEF
- 5. Jonathan Evans, Network Rail
- 6. Hugh Garrett Allen, Angel trains
- 7. Steve Taylor, Rail Wagon Association
- 8. David Barney, Victa Railfreight Ltd
- 9. Bushra Khan, TPE

Summary of comments submitted	Number	Comment categorisation key
Consulted		
Critical errors		CE
Editorial errors		ED
Typographical errors		TY
Observations		ОВ
Total returned		
Classification codes (CC)		
Document change		DC
No change		NC

Date responses published:

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								Way forward SC / NC	- [xxxx Standards Committee approved responses]
1			General:	In the event of a traction unit being re-commissioned after a period out of use the CCS community has a concern that any on board CCS equipment needs to be revalidated. This may mean making sure that version updates are made to vehicles that have been out of use and have not been updated	2			•	Agreed. New clause 3.2.7 g) added: Software updates, for example Train Management System, European Train Control System; Text added to A.1 e) iii): Obsolescence of electronic and communication equipment, including software.

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				in the same way that active vehicles have been updated. There may be similar issues for RST equipment as well. Some very explicit statement is suggested.						
2		Genera I	The Rail Wagon Association considers GMGN2571 to be a useful guidance document which should be retained and updated from time to time.  It provides a good list of issues to consider when defining storage requirements.		7				<b>&gt;</b>	Noted with thanks.
3	4	G1.2.2( b)	In this instance it may, or may not, be decided to make less preparation against deterioration.	Substitute 'may' or 'may typically' for 'will' in the second line of this clause as the use of 'will' appears to be too prescriptive.	8			<b>&gt;</b>		RSSB policy is not to use the word 'may' as this implies permission.  Amended as follows for consistency:  a) When a vehicle is intended for short-term storage, with an anticipated return to operational service, the preparations are likely to be aimed at preventing deterioration;  b) When a vehicle is intended for long-term storage, and its return to service is uncertain, there is likely to be less preparation against deterioration; a greater level of recommissioning work will therefore be required in the event that the vehicle is returned to service.
4	6	G2.2.3. b	Consideration should also be given when preparing the storage instructions and mitigation measures, to take account of two further additional location aspects:	It is suggested that these additional location environmental considerations could be included within G2.2.3 as additional sub-points iii & iv.	1			<b>√</b>		Agreed. Amended as follows: b) The properties of the location; for example: i) Whether it is under cover or in the open; ii) Local environmental conditions: coastal sites can increase the likelihood of corrosion, and high cross-winds can impart repeated sway;
			iii) Risk of exposure to high							iii) Proximity to running lines, giving rise to

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			crosswinds.  (This can increase the risk of false brinelling affecting the axlebox bearings as a result of repeated vehicle sway).  iv) Risk of exposure to ground borne vibration arising from the storage location proximity to any nearby operational lines.  (Proximity to running lines can increase the risk of false brinelling affecting the axlebox bearings as a result of the subsequent vehicle							ground-borne vibration from passing trains. Repeated sway and ground-borne vibrations can increase the risk of brinelling in axlebox bearings.
5	7	G2.3.2	vibration).  I suggest it would be useful if the guidance recommended that the procedures/documentation should also include clear provision for the transfer of responsibilities between parties whilst the vehicle is in storage (e.g. as a result of change of vehicle ownership or lease arrangement).  G3.1.1 recognises that the parties responsible for recommissioning may differ from those who placed the vehicle into storage, hence it would make sense for that potential transfer to be allowed for at the outset in the documentation (noting that someone focused on preparing to store vehicles may read part 2 of		5			V		Agreed. Added new point G2.3.2 e): Any transfer of ownership; see G3.1.1.

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			the GN but not part 3).							
6	8	G3.2.4	It would be preferable if this clause highlighted which aspects of the recommissioning process the guidance in the two RIS is relevant to. This could assist the reader in understanding to what extent it was necessary to consult those RIS in the context of the particular recommissioning activity the reader is involved with and where to focus their attention when looking at those RIS.		5			·		Clause removed as these referenced standards are more relevant to registration, as already stated in section G3.3.
7	8, 9	G3.2.7	The guidance does not seem to provide any specific consideration of recommissioning needs associated with electronic systems and particularly software-based systems; for example, making sure that software updates/patches or other system configuration changes released whilst the vehicle has been in storage are implemented.  I suggest some pointers on these issues would be useful as the GB fleet contains a growing proportion of trains with such systems, e.g. Train Management Systems and ETCS.		5			<b>V</b>		Agreed. New clause 3.2.7 g) added: Software updates, for example Train Management System, European Train Control System; Text added to A.1 e) iii): Obsolescence of electronic and communication equipment, including software.
8	8	G3.2.1	Apart from general "undertaking all necessary maintenance examinations" there is no reference to maintenance of the driving cab.	Reference should be made to scheduled maintenance of the cab environment and associated equipment.	4			<b>√</b>		Added clause G3.2.7 j: Scheduled maintenance of the cab environment and associated equipment; see also Appendix C.

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9	9	G3.3.1	Is it possible to provide guidance on the circumstances in which RIS-2700- RST may be relevant to assist a reader in determining whether it is something they need to consider?		5			✓		Clause amended as follows:  If the vehicles have been modified whilst in storage, or as part of the recommissioning process, the change might need to be assessed for conformity with Rail Industry Standards (RISs) and Railway Group Standards (RGSs), in accordance with RIS-2700-RST.	
10	10, 11	A1 e)	Consider whether there would be value in adding something along the lines of the suggestion in the next column to capture a further aspect of ageing.	iv) Components with a servicing period which may expire whilst in storage such as relays.	5			<b>✓</b>		Agreed and added.	
11		G3.2.7	The guidance for what is covered under recommissioning instructions does not mention an inspection or assessment of the driving cab	ASLEF policy is for a cab environment assessment to be carried out when rolling stock is recommissioned after longer than 6 months in storage and must include an assessment (against current standards) of the following:  1. Driver's seat and second person's seat. 2. Internal and structural crashworthiness. 3. Cab ergonomics - using independent human factors specialists. 4. A musculoskeletal risk assessment using an appropriate assessment tool (e.g. the RSSB's musculoskeletal risk	4			·		Agreed. Added to new Appendix C (as applicable for when a fleet is recommissioned), referenced from G3.2.7 j.	

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				assessment tool (MAT)).  5. Headlight brightness.  6. Air-conditioning or cooling and heating system to ensure:  • A cooling and heating capacity of at least 2.5kw  • Effective filtration of airborne contaminants and viruses  7. Anti-spall qualities of the windscreen  8. Cab noise						
12	11	App A i)	Brinelling is a key concern. Rather than just ask everyone to contact manufacturers, can some additional guidance be included following RSSB asking SKF or Timken etc?	Suggest adding:  Areas for consideration are vehicle axle weight, storage location relative to sources of vibration (e.g. trains on mainline), ensuring movements do not return to same point and etc etc {whatever additional guidance can be found}  Further specialist advice might need to be sought from manufacturers.	3			<b>&gt;</b>		RSSB has received advice from Timken that 4 months is an appropriate interval.  Star chart in B.3 therefore amended to indicate moving vehicle every 16 weeks.  Clause A.1 i) amended as follows:  The need to protect bearings (for example, in axles, engines, motors, gearboxes and other transmission elements) from damage  Factors for consideration are vehicle weight, storage location relative to sources of vibration (see G2.2.3)  Typically, moving a vehicle to rotate the wheels 1½ turns, every four months is advisable; further advice might need to be sought from manufacturers.
13	11	i)	Add a new sub paragraph which cross references RIS-2704, which recommends wheelset bearings are rotated every 2 months.	Wheelset bearings should be rotated every 2 months in accordance with the recommendation in RIS-2704	7			<b>√</b>		New sub-paragraph added to A.1 i): For reference, RIS-2704-RST suggests moving wheelsets every two months when stored off the vehicle. RIS-2704-RST added to references.
14	12	-	Appendix B Heading	Appendix A is headed actions	2			✓		Appendix B is intended to complement Appendix

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				prior to storage but appendix B does not make clear it relates to re-commissioning good practice, if this is not intention then may be there should be a separate appendix on this topic. (B1 dose feel like an Appendix A topic).						A by giving some specific examples. Note added to this effect.
15	12	B.3	The star chart does not include columns for 16 and 24 weeks, which means the frequency of some of the tasks are not entirely clear. For example, the table could be read as the external visual inspection needs to be completed at 4, 8, 12, and 24 weeks, but not at 16 and 20 weeks. However, I think the intention is that this is carried out every 4 weeks.	Add columns to the star chart for 16 and 20 weeks.	6			·		Agreed and added.
16	12	B.3	Notwithstanding the fact that Appendix B is badged as 'Examples of Good Practice' and qualified by para B.4, we would suggest that:- Given the importance of protecting wheelset bearings on freight vehicles it is worth adding a line to the 'star chart' table with a star at 8 weeks. Moving a vehicle every 6 months is probably insufficient.		7			<b>V</b>		See responses to comments 12 and 15.
17	12	B.6a	Why should a short period out of service elapse before the vehicle is classified into a group? Surely before the vehicle is out of service, the purpose and likely length of storage will be known?	Explain the rationale for this clause.	6				<b>√</b>	As indicated in the response to comment 14, this example is taken from existing industry documented practice. It is considered that this may reflect the possibility for a vehicle to be redeployed quickly, or re-leased, sold etc. before a decommissioning process can be implemented.

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18	10-12	App A or B	Additions to Appendix A or Ideas for best practice in Appendix B	Consider using a fuel additive before storage to restrict biological growth in the fuel system	9			<b>✓</b>	Add the following to A.1 a):  "Fuel additives might help restrict biological contamination of the fuel system."
19	10-12	App A or B	Additions to Appendix A or Ideas for best practice in Appendix B	Consider removing stored vehicles from shore-side databases and systems used for train-shore communication, and/or removing or remotely deactivating SIM cards from train-borne equipment, e.g. WiFi, PIS, infotainment, seat reservation system (to prevent nuisance failure/error messages or mobile network charges for data sent to stored vehicles).	9			<b>V</b>	Add the following to A.1 e) iii):  "Removing or remotely deactivating SIM cards from trainborne equipment such as Wi-Fi, Passenger Information Systems, infotainment and seat reservation systems, might help to prevent nuisance failure messages or mobile network charges for data sent to stored vehicles."  (Removing stored vehicles from shore-side databases and systems used for train-shore communication could potentially cause issues with vehicle registration in R2)
20	10-12	App A or B	Additions to Appendix A or Ideas for best practice in Appendix B	Consideration of galley equipment	9			<b>√</b>	Amended last sentence of A.1 d):  "Similar considerations might apply to batteries, galley equipment and other internal ancillary equipment."