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Your Ref CAF-UK-CI397-  
TF\_COV001

Our Ref

Case Ref PRM-IOP-0306  
EIN UK/51/2019/0007

19 July 2019

**Contact: Paul Hooper**  
**HM Principal Inspector of Railways**  
One Kemble Street  
London  
WC2B 4AN

Dear Paul,

**THE RAILWAYS (INTEROPERABILITY) REGULATIONS 2011, AS AMENDED  
AUTHORISATION OF CAF CLASS 397 ELECTRIC MULTIPLE UNITS FITTED  
WITH AWS AND TPWS, GSM-R VOICE ONLY, MAXIMUM SPEED OF 125MPH,  
VEHICLE NUMERS 397001 TO 397012**

I refer to your application for authorisation reference CAF-UK-CI397-TF\_COV001, received on the 20 June 2019 covering both the rolling stock and control command and signalling structural subsystems.

I also refer to your CSM-REA Article 16 Declaration of Control of Risk, reference C.J0.96.999.01, and Safety Assessment Report, reference RTUKR-T37721-007-Issue 1\_signed, dated 20 June 2019.

Following review of your application, I can confirm that ORR grants a first authorisation under regulation 4(1)(a) of the Railways (Interoperability) Regulations 2011, as amended. This authorisation is for the placing in service of the following: CAF Class 397 Electric Multiple Units, vehicle numbers:

Class 397 five car units:

- DMFLW 471001 to 471012
- PTS1 472001 to 472012
- MSL 473001 to 473102
- PTS2 474001 to 474012
- DMSL 475001 to 475012

I also refer to the EC Declaration of Verification, reference C.J0.96.710.00 Issue\_, dated 20 June 2019 where I note the references to the Notified Body TSI Certificates and Designated Body NNTR Certificates.

The restrictions or limitations of use on the rolling stock structural subsystem are those referenced on the EC Declaration of Verification of subsystems, document C.J0.96.710.00 Issue\_, dated 20 June 2019 and contained in your technical file, RTUKR-T37721-004-Issue3, dated 6 May 2019.

Limitations:

1. EIRENE SRS clause 3.2.4, for the GSM-R voice radio:
  - (i) Provides GSM-R Voice Cab radio functionality only,
  - (ii) Shall be combined with ERTMS ETCS data radios in order to provide full ERTMS functionality,
  - (iii) Segmentation of text messages is not included due to the lack of an agreed protocol for the service,
  - (iv) When Voice Cab Radios are considered safety related by a railway operator then that operator shall define any Safety Functionality required as part of their requirements specification,
  - (v) When operating the GSM-R voice radio in shunting mode, only the driver role can be used. It is not possible to change role. This limitation relates to EIRENE SRS 15.4.0 clause 14.4.6.
2. EIRENE SRS 14  
When operating the GSM-R voice radio in shunting mode, only the driver role can be used. It is not possible to change role. This limitation relates to EIRENE SRS 15.4.0 clause 14.4.6.
3. Operation is limited to 65mph with deflated suspension (LOC & PAS TSI Clause 2.1.5.2).
4. LOC&PAS TSI – Clauses 4.2.8.9.7(3) / 4.2.8.9.7(4) / 6.2.3.20  
Issue 3 of the Technical File RTUKR-T37721-004-Issue3, is compliant for the Class 397 to operate in single unit operation only. Testing of the Class 397 in multiple 'unit' operation is to take place following the issue of this Technical File. As a result, the following constraint is specified in the NoBo assessment:  
  
Units not to be operated in multiple configuration until pantograph testing in multiple configuration has been performed and a Notified Body has confirmed that the test results demonstrate compliance with this requirement.
5. Test operation shall be in accordance with Network Rail T-stage Summary of Compatibility (SOC) NRSC/0397/010/t, or subsequent issue.

6. LOC&PAS TSI – Clause 4.2.4.2.1 (6)  
Speed limited to 177km/h (110mph) in the event of any reduction in dynamic brake or friction brake capacity.
  
7. GMRT2045 clause 2.10.2.1 / LOC&PAS TSI clause 4.2.4.4.1 (3)  
Assessment of ETCS related equipment is not in the scope of this assessment. ETCS not to be used until formally assessed for compliance under RIR.

Conditions:

1. The Operator, Trans Pennine Express shall have in place, before commencement of passenger service, the operational procedures necessary to mitigate transferred and open Safety Related Application Conditions (SRACs) from CAF.
  
2. The Operator, Trans Pennine Express shall not operate the Class 397 in passenger operation until a service Summary of Compatibility (SOC) is in place.
  
3. The Operator, Trans Pennine Express shall demonstrate to ORR, before the trains are put into passenger service, the arrangements for controlling the PTI risks (stepping distances, train and platform length (ASDO)) are being controlled alarp at all the stations where the Class 397s will operate.

You should be aware that any future modifications to the authorised subsystems may constitute a 'renewal' or an 'upgrade' as defined in Regulation 2. If a project entity, in relation to the project, considers that the modification meets either of these definitions they may apply, in accordance with the provisions of Regulation 13, to the Department for Transport (DfT) for a decision on whether a new authorisation will be required. Should DfT decide that an authorisation is not required they must consult with ORR whether authorisation is required on safety grounds.

As the project entity you are responsible for retaining the technical files, keeping it up to date and making it available to the ORR in accordance with Regulations 18 and 19.

If you are not the owner of the authorised subsystem you shall within 60 days, in accordance with Regulation 19(3), transfer the technical file, certificate of verification and verification declaration to the owner of the subsystem and the owner shall then be regarded as the project entity. If the owner, in accordance with Regulation 19(4), disposes of his interest in the authorised subsystem, he shall within 60 days of the disposal transfer the technical file, certificate of verification and verification

declaration to the person acquiring that interest and that person shall be regarded as the project entity.

Please note that under Regulation 36, the person who applied for the authorisation shall send particulars to the Registration Entity to enable the registration entity to enter the information on the National Vehicle Register. This will include such further information as the registration entity may reasonably require set out in the relevant standard.

The person who applied for the authorisation to place in service will be issued with a determination of type in accordance with Commission Implementing Decision 2011/665/EC. The person who applied for the authorisation to place in service will receive the type authorisation after providing the data to the Registration Entity in accordance with Annex II of Commission Implementing Decision 2011/665/EC.

If you are the operator, may I remind you of the need to have adequate arrangements within your Safety Management System to control the risks associated with this rolling stock subsystems.

Yours sincerely



Ian Prosser

Director, Railway Safety

Railway Safety Directorate

Cc

Steve Fletcher Deputy Director, Railway Planning and Performance, ORR

Ian Jones Head of Interoperability, DfT

Paul Staples Fleet Director, Trans Pennine Express

National Vehicle Register [nvr@networkrail.co.uk](mailto:nvr@networkrail.co.uk)

David Galloway Head of Vehicle Compatibility, Network Rail

Nigel Bunce

HM Principal Inspector of Railways, ORR

Sarah Cairns

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