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Your Ref [172487-W2H
OMO]

Case Ref PRM-IOP-00508

IN Number:
UK/63/2026/0001

27th August 2026

Contact: Jenny Hamilton

10th floor 25 Cabot Square
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Dear Mr Cocker

**THE RAILWAYS (INTEROPERABILITY) REGULATIONS 2011, AS AMENDED
AUTHORISATION OF CONTROL, COMMAND AND SIGNALLING TRACKSIDE
SUBSYSTEM RELATING TO THE INSTALLATION OF ETCS LEVEL 2 INCLUDING TRAIN
DETECTION (BL3R2) AND UPGRADE OF THE GSM-R (BL1) FOR DATA USE ACTING
AS A BEARER FOR ETCS.**

I refer to your application for authorisation received on the 25th August 2026 and technical file reference East Coast Digital Programme (ECDP) Welwyn to Hitchin Operational Migration Overlay (OMO) dated 25th August 2026 and technical file reference DDaT National GSM-R TF Volume 1 Part 1 (Issue 12) & Part 2 (Issue 8) dated 19th August 2026. Following review of your application, I can confirm that ORR grants 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 Control, Command and Signalling trackside subsystem as identified in your submission as ETCS Level 2 (including RBC system build F4.2 and system software F4.2_E01 and train detection) and GSM-R upgrade for data use acting as a bearer for ETCS.

This is only valid to the following limits:

W2H Authorisation Limits				
Lvl 2 area - (Train Control) – Level Transition Balise Group / CAB Boards				
ELR	Line	TID	Start	Finish
ECM1	UP Slow	1200	19m 0863yds	37m 1224yds
	UP Fast	1100	19m 0863yds	37m 1224yds
	DN Fast	2100	19m 0333yds	35m 0343yds
	DN Slow	2200	19m 0333yds	35m 0343yds
HDB	UP Hert	1100	27m 1546yds	27m 1734yds
	DN Hert	2100/3605	27m 1435yds	29m 0000yds
SBR	Up Roy	1100	32m 0235yds	33m 1517yds
	DN Roy	2100	32m 0320yds	33m 0948yds
DCF	DN Roy Flyover	2100	32m 1168yds	34m 0116yds

W2H Authorisation Limits				
Axle Counter area (Train Detection)				
ELR	Line	TID	Start	Finish
ECM1	UP Slow	1200	19m 0013yds	38m 0119yds
	UP Fast	1100	19m 0040yds	38m 0124yds
	DN Fast	2100	18m 1378yds	35m 1217yds
	Dn Slow	2200	18m 1483yds	35m 1218yds
HDB	UP Hert	1100	27m 1638yds	27m 1734yds
	Dn Hert	2100/3605	28m 0132yds	29m 0000yds
SBR	Up Roy	1100	32m 0235yds	34m 0333yds
	DN Roy	2100	32m 0320yds	33m 1615yds
DCF	DN Roy Flyover	2100	32m 1168yds	34m 0116yds

W2H Authorisation Limits			
GSMR Base stations			
ECM1	Low Mileage	6127 (Brookmans Park)	13m 0814yds
	High Mileage	0422 (Biggleswade)	43m 1650yds
HDB	Low Mileage	0418 (Stapleford)	22m 0849yds
	High Mileage	Langley Junction with ECML	27m 1734yds
SBR	Low Mileage	Cambridge Junction with ECML	32m 0235yds
	High Mileage	3089 (Baldock Station)	37m 1430yds

W2H Authorisation Limits				
Packet switching area				
ELR	Line	TID	SME	SMT
ECM1	UP Slow	1200	39m 0690yds	19m 0284yds
	UP Fast	1100	40m 0183yds	19m 0284yds
	DN Fast	2100	16m 1695yds	35m 0962yds
	Dn Slow	2200	17m 0832yds	35m 0962yds
HDB	UP Hert *1	1100	26m 1308yds (Bi-Di)	27m 1734yds
	Dn Hert *2	2100/3605	26m 1308yds	29m 0000yds
SBR	Up Roy *3	1100	34m 1117yds	32m 0235yds
	DN Roy *4	2100	32m 0320yds	33m 1592yds
DCF	DN Roy Flyover *5	2100	32m 1168yds	34m 0116yds

Notes associated with the above table:

Note *1 –Trains using the Up Hertford in the normal direction have no Session Management Establishment (SME) balises as they will already be ETCS L2 from the East Coast main Line (ECML) Up Hertford. The Session Management Termination (SMT) balise will terminate the session and Packet Switching (PS). The SME for the Up Hertford is a bi-directional SME for trains travelling in a down direction. The trains making this move will cross over onto the Down Hertford through 2340 pts. This is a perturbed move, but PS capability does extend to the SME. This leaves a gap between the SMT balise for normal moves and 2340 pts for perturbed moves that will never use PS functionality. This gap in PS functionality is not included in the table above. The limits are given as the SME Balise to 2340pts.

Note *2 – Trains using the Dn Hertford will pass over the SME and connect to PS. They will run into Stevenage P5 or join the ECML through 5604pts. No SMT is encountered. Following a turnback move at Stevenage P5, the train would be using PS and the SMT would disconnect the train from PS prior to the SME balise. The limits in the table are therefore given from the SME to the Buffer stop for the Dn Hertford.

Note *3 –Trains using the Up Royston will connect to PS functionality at the SME balise. No SMT is provided as trains join the ECML. The SMT limit in the table is the end of the Up Royston at 5816pts.

Note *4 – Trains using the Dn Royston will already be using PS functionality from the ECML. No SME is provided. The SME limit is given as the start of the Dn Royston 5818pts.

Note *5 – Trains using the Dn Royston Flyover will already be using PS functionality from the ECML. No SME is provided. The SME limit is given as the start of the Dn Royston Flyover 5822pts.

Trains will remain using PS functionality throughout the entirety of the Dn Royston Flyover, rejoining the Dn Royston through 6004pts which is given as the SMT limits in the table.

It is noted that although the packet switching functionality has been enabled, it is not yet utilised by trains.



It is noted that the subsystem has been assessed against CCS NTSN v2 dated 02/05/2025 and using set of specifications #3 (ETCS Baseline 3MR2 and GSM-R Baseline 1). Transitional arrangements as per NTSN issue 2 are noted.

The restrictions or limitations of use on the CCS subsystem are those listed on the Declaration of Verification 172487-SIR-CRF-ESS-000005 v3.0 dated 20th August 2026, contained in your technical file, references I-202512 55 and TR95694, and safety assessment reports, 172487-SIR-ASS-ESS-000006 Issue 01 AsBo SAR for ETCS L2 OMO (Phase 6) dated 19th June 2026, ACS/3942/R02 Issue 2.0 GPRS Safety Assessment Report dated 3rd December 2025 and NCB_N05635_SAR_6330 V2.0 AsBo_ECDP – Railway Systems Integration - Welwyn to Hitchin Railway Configuration State RCS3.0a_SAR dated 24th August 2026.

Limitations

- (1) From GSM-R UK Type Examination Certificate (SB)
 - a. Cross border Virtual Group Call Service (VGCS) and Railway Emergency Call (RC) functionality with the French GSM-R network has not been demonstrated.
- (2) From GSM-R UK Type Examination Certificate (SB)
 - a. For GSM-R acting as the bearer for ETCS Data, operation has been demonstrated up to the line speed (on applicable route). This is a limitation of the testing (reference SUBSET-093 v2.3.0 Clause 6.3.1.4 which refers to support of trackside top train data communications at speeds up to 500kmh).
- (3) Subset-093 issue 4.0.0 has been used by the ApBo to assess the GPRS performance. This subset is classed by ERA as informative. This doesn't form a legal basis for authorisation and is therefore out with the scope of this authorisation.

The following requirements must be met by the time specified below:

- (1) The Test Certificate 1 for the final Putting Into Use (PIU) design shall be completed and any deferred test logs agreed with the NR Test and Commissioning Manager before PIU.
- (2) The Installed System Baseline Software Records (ISBSRs) shall be issued to confirm the configuration baseline to be deployed on site before PIU.
- (3) Trackside Safety Justification Report (SJR) Complete, supportive Safety Assessment report (SAR) received, and Endorsed at System of Systems Safety and Security Panel (4SP), all dependencies or conditions closed for Railway Configuration State (RCS) 3.0a and any Competent Authority (DfT) decisions under Reg13 and Reg14 of RIR 2011 to have been obtained before PIU.
- (4) Onboard Fitment Responsible Parties SJR Complete, supportive SAR received, and accepted by the appropriate body, all dependencies or conditions closed for RCS 3.0a. Interim DoCoR received [GTR_ETCSOS_W2H_DEC_001 DoCoR RCS3.0 Issue 1] to have been obtained before PIU.



- (5) Operational Restrictions and all relevant briefings to operators and maintainers for RCS3.0a have been briefed out. This will be confirmed closed as part of the Entry Into Service (EIS) Checklist and be closed out before PIU.
- (6) The project is required to close all outstanding test logs, identified in Table 19 of the 769643-2631 Safety Justification Report RCS3.0 Trackside inclusive of GSM-R, before or at PIU, and to close all Dependencies, identified in Table 5 of 769643-2631 Safety Justification Report RCS3.0 Trackside inclusive of GSM-R, as soon as practicable and prior to PIU.

It is noted that for this authorisation, ETCS Level 2 will be used as an overlay onto the existing signalling system and there is a plan to implement a “Level 2 No Signals” system in future works. This should be undertaken in compliance with legislation in force at that time.

The Control, Command and Signalling trackside subsystem(s) authorised by this letter must be operated and maintained in accordance with Regulation 20.

You should be aware that any future modifications to the authorised subsystem 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 file, 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, they 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 the person who applied for the authorisation shall send particulars to the owner of the infrastructure to enable the owner of the infrastructure to enter the items on the Register of Infrastructure in accordance with Table 1 of Commission Implementing Decision 2019/777 as amended by Regulations 21 to 30 of The Railways (Interoperability) (Miscellaneous Amendments and Revocations) (EU Exit) Regulations 2020. This will include such further information as the registration entity may reasonably require set out in the relevant standard.



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 Control, Command and Signalling trackside subsystem.

This decision letter will be published on ORR's website.

Yours sincerely

Steve Fletcher
Deputy Director, Engineering & Asset Management

Cc

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