



OFFICE OF RAIL AND ROAD

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Your Ref 158365 GSMR
APIS

Our Ref

Case Ref PRM-IOP-0333

EIN Number
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Contact: **Stephen Williams**

Dear Patrick

**THE RAILWAYS (INTEROPERABILITY) REGULATIONS 2011, AS AMENDED
GSM-R CAB MOBILE SVR 400+ WITH NR4.0 SOFTWARE (BUILD 1127) WHICH
INCORPORATE AN ETSI TS 102 933 V 2.1.1 COMPLIANT TRANSCEIVER**

I refer to your application for authorisation, received on the 24th October 2019. 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 upgraded GSMR Cab Mobile Radio subsystem to the vehicles detailed below inclusive.

Operator at the time of submission	Class	Vehicle
South Western Railways	158	158882
South Western Railways	159	159004

The restrictions or limitations of use on the structural subsystem are those contained on the declaration of verification dated 21st October 2019 and contained in your technical file, reference ECDV 765297 issue 01 and NoBo Technical file 765297TF01. These are listed below:

- (1) For GB use only. The Cab Mobile has been tested on the Network Rail GB GSM-R infrastructure and with a Network Rail SIM. Further compatibility testing is considered to be required prior to use on other GSM-R infrastructures and with other SIMs
- (2) Only to be used for voice and associated SMS messages.
- (3) Only to be used to replace a previously authorised UK GSM-R Cab Mobile.

- (4) EIRENE FRS 11.3.4.2/11.3.4.3 - Registration | deregistration on network changes. This relates to automatic roaming between EIRENE networks and the re-registration of functional numbers after selection of a new network. This had previously been treated as a network function, however EIRENE FRS 8.0.0 now specifies this as a cab radio function. The V4.0 cab radio does not support these requirements. This has no impact upon operation within GB, however an operational restriction applies to roaming of the cab radio onto other networks.
- (5) SRS 5A.1 - Aspects of Call Arbitration. This relates to the priority of public address calls. EIRENE SRS 16.0.0 introduced a new test specification (0-3001-1) which alters the behaviour of call arbitration. The V4.0 cab radio has not adopted these revised requirements and maintains the behaviour of V3.6. This has no impact upon operation within GB as V4.0 will continue to behave as at present, however it presents a potential restriction for use on other networks. The changes between EIRENE 7/15 and EIRENE 8/16 have had the effect of 'upgrading' the importance of an on-going call to the public address relative to other types of calls which nominally have the same priority. From a driver's perspective, this change would have the effect of making him wait to make or receive a new call of the same priority (Pri = 3).
- (6) EIRENE SRS 12.2.2 - Multi-segment SMS Support. This relates to support for multi-segment SMS messages, which are not supported by the V4.0 cab radio. Currently this has no impact upon operation in GB since multi-segment SMS messages are not used on the GB GSM-R network. Should a cab mobile receive a multi-segment SMS message it would display the message as a series of messages with possibly spurious characters where the linking information is not interpreted.
- (7) EIRENE SRS 14.4.6 - Change of Role while in Shunting Mode. This relates to the ability to change role in shunting mode. This is not supported by the V4.0 cab radio which only allows the lead driver to be registered while in shunting mode. This has no impact upon operation within GB where shunting mode is not used and the existing behaviour is unchanged, however it presents a potential restriction for use on other networks.

The conditions which must be met by the time specified below are:

- (1) The projections made in the Reliability, Availability, and Maintainability (RAMS) report should be confirmed by measurement for the Funkwerk transceiver fitted radios.

The condition shall be discharged by supplying appropriate evidence and endorsed by relevant train/freight operators. This should be accompanied by a signed letter by the project manager declaring that the predictions have been confirmed by measurement. This should be completed by June 2020.

It is also noted that the unsupported functions against non-MI (mandatory for Interoperability) requirements are:

- eREC
- Change of IMEI field on SIM following an OTA update
- UIC PA (UK PA is used instead)
- UIC Intercom
- Access to on-board conductor via cab radio
- Point-to-point call in shunting mode
- Closed User Group
- Use of Group 555 for Controller-to-All-Trains calls

The upgraded rolling stock subsystem 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 further '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.

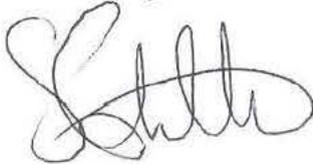
If you are not the owner of the authorised subsystem you shall within 60 days, in accordance with Regulation 19(3), transfer the technical file, certificate of verification and verification declaration to the owner of the subsystem and the owner shall then be regarded as the project entity. If the owner, in accordance with Regulation 19(4), disposes of his interest in the authorised subsystem, 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 update 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 may apply to the ORR for a determination of type in accordance with Commission Implementing Decision 2011/665/EC. The person who applied for the type authorisation will receive it 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 upgraded rolling stock subsystem.

Yours sincerely



Steve Fletcher
Deputy Director, Engineering & Asset Management

Cc

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