OFFICE OF RAIL AND ROAD

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Case Ref: - PRM-IOP-309

EIN/UK/62/2019/0001

Date 22nd May 2019

Contact: Mark Gough
HM Inspector of Railways
ORR, 3rd Floor, Mallard House, Kings Pool,
1-2 Peasholme Green, York.
YO1 7PX

Dear Steve

THE RAILWAYS (INTEROPERABILITY) REGULATIONS 2011, AS AMENDED

WEST ANGLIA MAIN LINE CAPACITY IMPROVEMENT

Further to your application for authorisation received on the 17th May 2019 with Technical File reference: NCB_128008_NoBo-DeBo AR_3112 V1 West Anglia Main Line Capacity Improvement.

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 energy subsystem of the third line (referred to as the Lea Valley Reversible). This is electrified with Series 2 equipment Contact System comprising Network Rail Series 2 designed for a maximum line speed of 60 mph. From the neutral section at Coppermill Junction to the project boundary at Meridian Water.

Mark 3B overhead line equipment is installed from the neutral section at Coppermill Junction to the newly installed crossover, connecting the new third line to the existing Temple Mills line. This section does not form part of the authorisation it was agreed with NRAP that the interface between the systems did not need authorisation as this was a modification to existing infrastructure.

The limits of each are as follows:

Series 2

From the neutral section at (7m242y, ELR:SDC) 7758m project chainage (structure SC/05/04A) to (7m1122y, ELR:BGK) 12290m (structure C/07/39A) on new third line

Mark 3B

From (6m853yds, ELR:SDC) 6708m (Structure SC/04/02A and 02B) on the Up and Down Temple Mills to the neutral section at (7m242y, ELR:SDC) 7758m project chainage (structure SC/05/04A) on new third line.

The Anglia System Review Panel (LNW SRP) have endorsed this project and are satisfied that any identified hazards both legacy and residual hazards have been adequately closed and/or transferred to the appropriate body before placing in service in accordance with declaration of control of risk 128008-NRS-RAR-MPM-000058 V3 . There were no derogations from the TSIs and one derogation from National Notified Technical Rules GM/RT2173 clause 3.4 Pantograph sway RSSB deviation 17-076-DEV granted 31/7/2018

Regulation 12 of the Electricity at Work Regulations 1989 requires electrical system to be isolated in a manner that is secure. Network Rails supplementary isolation procedure a method of achieving compliance with this regulation for new installations was not adopted. The enhanced functionality of the TPCMS (Traction Power Control and Monitoring System) was used to add additional inhibits. This was endorsed by Anglia SRP and the Professional head of contact systems AC/DC. This improvement was adopted to the wider network controlled by the TPCMS.
This was considered proportionate to the changes and a step toward remote securing.

The following Restrictions and Conditions apply

Restriction 1 This restriction is applied for to limit use to trains that meet the terms of the ISV applicability table in terms of number of pantographs, pantograph spacing and authorised speed. **Pantograph spacing for overhead contact line design Clause 4.2.13 .** Only the pantograph model/manufacturer and train configuration combinations quoted in the Series 2 v6 ISV applicability table may be utilised. Additional pantograph model/manufacturer and train configuration combinations may be demonstrated by further simulation and testing. Route SRP to endorse compatibility before entry into service of new rolling stock.

Restriction 2 - This restriction is applied for to limit use to trains that meet the terms of the ISV applicability table in terms of the type, width and shape of pantographs. **Pantograph Gauge Clause 4.2.10** Only pantograph profiles assessed as compliant and detailed in the Series 2 v6 assessment applicability table or as subsequently demonstrated may be utilised. This requirement is to ensure route compatibility for new rolling stock. Route SRP to endorse compatibility before entry into service of new rolling stock

Condition 1 Protection by clearances from standing surfaces – Protective provisions against electric shock Clause 4.2.18 Protection by clearances from standing surfaces – The design and production evidence is to be provided to the NoBo for the parapet works on overbridge 1399. The Mesh screen exceeds that permitted in BSEN50122-1 .The bridge is fully enclosed and photographs were provided to demonstrate temporary mitigations are in place

The infrastructure 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 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 Commission Implementing Decision 2011/633/EU. 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. You will receive the type authorisation after providing the relevant data to the ORR.

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 renewed infrastructure subsystem.

This decision letter will be published on ORR's website

Yours sincerely

Steve Fletcher

Deputy Director of Engineering & Asset Management

Copies:

Ian Prosser Director Railway Safety, One Kemble Street, London, WC2B 4AN

Ian Maxwell, Head of Train Control Systems, One Kemble Street, London, WC2B 4AN

Paul Hooper, HM Principal Inspector of Railways, One Kemble Street, London. WC2B 4AN.

Gary Taylor, ORR, Senior Interoperability & Standards Executive, One Kemble Street, London. WC2B 4AN.