

Khurram Hussain
Network Rail Infrastructure Ltd,
Reading Davidson House
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RG1 3EU

Your ref 164575-NWR-LTR-MPM
-000005

Case Ref PRM-IOP-0440

UK/62/2022/0002

Date 5/4/2022

**Contact: Mark Gough
HM Inspector of Railways**

ORR, 2nd Floor, Mallard House, Kings Pool,
1-2 Peasholme Green, York.
YO1 7PX

Dear Khurram Hussain

**THE RAILWAYS (INTEROPERABILITY) REGULATIONS 2011, AS AMENDED
AP12A Western Traction Power Stage 4a AT System**

I refer to your application for authorisation received on the 3/3/22 and technical file reference '164575-NWR-REP-ESE-000004 A01 (NCB_N05021_CAR_4280 Version 1.1)'. 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 energy subsystem located inclusive

Energy (ENE) - 0miles 0chains and approx. 24mile 60chains (Paddington to Maidenhead neutral section) This is for completion of Stage 4a.

- a) Auto Transformer Feeder (ATF) installed between Kensal Green ATFS (Auto Transformer Feeder Station) and Maidenhead MPATS (Mid-Point Auto-Transformer Site) and energised at 25kV.
- b) The following changes to AT (Auto Transformer) Distribution Substations:
 - a) Maidenhead Mid-Point Auto-Transformer Site (MPATS) - To be reconfigured for AT feeding with new protection settings and entry into service of AT1 and AT2 autotransformers.
 - b) Hayes SATS (Sectioning Auto Transformer Site) – To be reconfigured for AT feeding with new protection settings and entry into service of AT1 and AT2 autotransformers.
 - c) Kensal Green ATFS - To be reconfigured for AT feeding involving the connection of the AT busbar to the ATFs.



There are no restrictions or limitations of use on the structural subsystem listed on the Declaration of Verification '**164575-NWR-STM-ESS-000004**', or contained in your technical file, reference '**164575-NWR-REP-ESE-000004 A01 (NCB_N05021_CAR_4280 Version 1.1)**'

CRL take two alternative feeds (IC1 and IC2) from Kensal Green ATFS, which was operational from Stage 2c. There are no traction power interfaces that are part of this authorisation.

Stage 4b will introduce enhancements to the protection and automation of the AT feeding distribution scheme introduced at Stage 4a, using the Rationalised Auto Transformer Scheme (RATS). This stage will introduce intermediate AT sites at West Ealing and Slough and will provide the full capability in terms of long-term electric traffic growth on the Route. The modelling applied to Stage 4a is the worst-case scenario. Stage 4b will not cause the ATF system to behave outside of the limits of the ENE NTSN and will not require a separate authorisation.

The infrastructure 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 their 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 infrastructure subsystem(s).

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

Yours sincerely

A handwritten signature in black ink, appearing to read 'Steve Fletcher', written in a cursive style.

Steve Fletcher
Deputy Director, Engineering & Asset Management
Cc

Ian Jones	Head of Interoperability, Safety and Standards DfT
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