

# Impact assessment

<b>Impact Assessment : Outcome of assessment of exemption application – train protection arrangements for running of Crossrail trains between Paddington and Heathrow Tunnel Junction</b>	
<b>Date:</b> 25 November 2015	<b>Stage:</b> To support decision
<b>PID reference:</b> N/A	<b>Version:</b> 1

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## Section 1: The issue

1. An exemption application was received by the Office of Rail and Road (ORR) from Network Rail concerning the train protection arrangements for Crossrail services between Paddington and Heathrow Tunnel Junction between May 2018 and December 2019. The Railway Safety Regulations 1999 (RSR 99) set out the requirements for train protection systems in detail and Network Rail and Crossrail considered that what they were proposing for this period of time would require an exemption from those Regulations.
2. The ultimate train protection arrangements for Crossrail will be through the European Train Control System (ETCS) and the current timescale for fitment to the Paddington to Heathrow Airport infrastructure allows for testing ahead of the staged introduction of Crossrail services and rolling stock in May 2018. Network Rail and the future Crossrail operator have developed an alternative plan in case this fitment target date is not met that would enable Crossrail to open on time but would rely on an interim train protection solution (for this section of the Great Western route) which is not as functionally comprehensive as the system in place providing the current Heathrow Connect service. They presented their arguments and justifications for this in their exemption application and set out how they considered that the arrangements they proposed would meet any safety concerns.
3. ORR's cross office assessment team has considered the safety and technical information provided in support of the application and reviewed responses received to an invitation for stakeholder comment in order to decide whether or not an exemption should be granted. As part of this process it has considered the policy and operational implications of the various options available. The decision whether or not to issue an exemption under regulation 6 of RSR99 falls within the regulatory framework of the Health and Safety at Work etc. Act 1974 but the assessment team recognised that the implications of its conclusions and recommendations would go beyond that of a solely safety-based decision.

## Section 2: The objectives

- To enable ORR to undertake a considered assessment of the exemption case made by the Network Rail/Crossrail team and provide a sufficiently robust, evidence based decision on the merits of the case.
- To communicate that decision ensuring that our conclusions regarding any safety impacts of the proposals, and the level of train protection that the alternative plan would provide, are clear and understood.
- To confirm through appropriate wording of any exemption and attached conditions the precise scope of the alternative train protection arrangements and our expectations of the Network Rail/Crossrail team during the lifetime of any exemption certificate.

### Section 3: Option generation and appraisal

#### Option 1 – Do nothing

4. We could have ignored the exemption request on the basis that we expect Network Rail to deliver its commitment to fit ETCS in time for the running of Crossrail services on this section of the route and therefore an alternative interim arrangement should not be required. However, this could be subject to challenge as we are not responding to a legitimate request made under the auspices of RSR 99 and for which we have a published process and procedure to manage applications.

5. More widely we would be seen as unresponsive to a live issue for the Network Rail/Crossrail team which has potential implications for the overall delivery of the Crossrail programme and on which they have instigated early engagement with ORR. The Network Rail/Crossrail team had also undertaken pre-consultation with some affected stakeholders before lodging their exemption application (and received broad support for their proposals) so the expectation would be that ORR would consider the case. To “do nothing” was therefore not considered a viable option by the case team

#### Option 2 – Refuse the exemption request having undertaken an assessment of the case material provided

6. The ORR cross office case team consisted of representatives from its Railway Safety Directorate, Railway Planning and Performance and Legal teams who undertook individual and collective assessments of the material provided in the case and through a series of follow up meetings with the Network Rail/Crossrail team. These assessments were comprehensive and considered the case from a range of perspectives including whether the overall safety impact of the alternative train protection proposal was tolerably close to the established reasonably practicable standard, whether or not it would give rise to any consequential risks, whether the proposed train protection on the section of route could offer a broadly acceptable level of protection, whether there were other reasonably practicable options that the Network Rail/Crossrail team could have pursued, and whether there was a genuine commitment to deliver ETCS and depend on any exemption only as a fall-back position. The proposed alternative train protection arrangements would involve fitting train protection in more places than prescribed by the Regulations (albeit of a type that is not as functionally comprehensive as automatic train protection) so the case team also considered whether additional protection would be afforded to all rolling stock using this section of line (and equipped with this type of train protection system) because more signals would be fitted.

7. All case team members individually and collectively agreed that the application, supporting documents and further discussions/outputs provided by the Network Rail/Crossrail team provided a sufficiently compelling case to agree that in principle an exemption should be granted (subject to finalisation of wording and any conditions). The vast majority of the stakeholder comments sent to ORR were broadly supportive of the proposal and need for exemption, recognising that a pragmatic solution was needed whilst continuing to drive delivery of ETCS to the route. Detailed points that were raised by respondents had no material impact on the case team’s conclusions as to the merits of the case.

8. Therefore refusal, following such a thorough assessment and stakeholder comment, was not the preferred option for the case team believing it carried similar reputational risk for ORR as set out in relation to a “do nothing” option. Impacts on Network Rail, the Crossrail team and other affected operators/parties would be significant leaving them with a threat to the successful commencement of Crossrail services on programme and with nowhere further to go to seek a legal solution/exemption.

9. Additionally we understand that Network Rail has already taken the business decision to plan and finance the fitment of the additional equipment now (i.e. the proposed alternative train protection arrangements), not pre-empting any decision ORR may make but for reasons of efficiency and economy.

Whilst this is clearly a business risk they have chosen to take, there would be financial impacts if they did not receive a positive decision.

### **Option 3 – Agree to an exemption certificate without conditions**

10. This option would provide Network Rail/Crossrail with the certainty they require to proceed to put additional train protection equipment in place in the knowledge that this could legally be used (for RSR 99 purposes) as the agreed fallback option if ETCS is not delivered on time on this section of the route. The absence of any conditions would allow them to progress at their own pace and interpretation of what the exemption permitted them to do, with limited regulatory oversight.

11. The case team considered that this option had the following risks –

- what was agreed as an interim solution could become much longer term;
- the agreed interim solution could end up becoming a permanent solution with the legal requirement for an automatic train protection system (through ETCS) not being delivered;
- the alternative train protection system that the case team agreed to may not be what is delivered on the ground if this is not clearly spelt out in the exemption certificate;
- the opportunity would be lost to use the exemption process/certificate to help incentivise the delivery of the ultimate ETCS solution; and
- the necessary assurances would not be provided to other interested/affected parties that ORR would maintain adequate regulatory oversight.

### **Option 4 – Agree to an exemption certificate with appropriate conditions**

12. This option would provide NR/Crossrail with the certainty they require whilst equipping ORR with assurances and mechanisms to address the risks associated with option 3. The exemption certificate would be worded so that it:

- was appropriately timebound;
- included mechanisms to allow ORR to review and challenge progress with delivery of ETCS *and* the application of the agreed alternative, fallback arrangements (if needed); and
- was precise as to what train protection arrangements would actually be permitted in the interim, rather than simply stating what legal requirement the dutyholder is exempted from.

13. Such conditions would be proportionate and would not impose additional costs on NR/Crossrail. Our monitoring of the application of the exemption and its conditions would be undertaken within our existing monitoring activities to hold Network Rail to account. As explained earlier this reflects a fallback position for the Network Rail/Crossrail team and in practice the exemption may not be need or applied fully.

14. Option 4 is therefore the preferred option and the case team has proceeded on this basis.

## **Section 4: Evaluation**

15. The exemption certificate and its conditions will be so worded to allow regulatory oversight of its effectiveness. ORR has the vires to revise or revoke the exemption at any time but in practice we would engage with exemption holder before considering such action.