

Sent by Email: [office@chilternsociety.org.uk](mailto:office@chilternsociety.org.uk)

**Mr John Gladwin**  
The Chiltern Society  
White Hill Centre  
White Hill  
Cheshire  
Bucks, HP5 1AG

14 May 2020

Dear Mr Gladwin,

## **RE: Various Correspondence and Queries Relating to the Design, Construction and Operations of HS2**

I am aware that The Chiltern Society has raised a number of questions relating to design, construction and safe operation of HS2 over a number of months.

I thought it might be helpful to set out the overall basis for our designs and the underpinning assurance and legal foundation for these. Having received the approval from the Prime Minister to progress with the construction of the railway, we are entering an intense period of work over the coming years, so I hope you will understand that our capacity to continue to respond to detailed engineering and technical questions from the Chiltern Society is now limited.

I'm confident however that you will agree that this letter provides reassurance that the design of the route and its construction is being delivered to the highest standards worldwide by the world's most experienced supply chain.

HS2 Ltd takes the safety of the railway extremely seriously and has worked from the initial specification of the project to develop the highest safety standards. The system in operation will be amongst the safest in the world in common with other high-speed railway operations.

We have carefully selected a supply chain which now includes the most experienced constructors and designers who have a vast experience of high speed line construction.

We take our responsibilities to consult with stakeholders and members of the public seriously and have addressed concerns raised during the passage of the Hybrid bill to the satisfaction of the select committee involved. In addition, we have met with your Society on numerous occasions and provided unparalleled access to HS2 technical experts. Meetings have taken place on separate occasions with the HS2 Chief Engineer, HS2 Head of System Safety and the Lead engineer for the Chilterns tunnel. In addition to these face to face meetings, HS2 Ltd has provided written answers to a number of queries.

A recent query includes a question relating to the safety of the tunnel evacuation process. This process and associated technical systems have been based on international best-practice, but we have improved on this where possible and as a result HS2 itself will be a benchmark for future high speed railway tunnel systems. The system in operation will comply with British Standards and legal requirements as laid out in the Safety in Railway Tunnels Technical Specification for Interoperability (SRT TSI).

The review, assessment and approval of the evacuation process follows the established mandatory safety risk assessment process known as the Common Safety Method on Risk Evaluation and Assessment (CSM-RA). This systematic risk assessment identifies all possible hazards within the process and the risk controls appropriate to mitigate the risk. There is significant assessment and review from the Fire and Rescue Services (FRS), including Quantitative Design Reviews of each tunnel which contribute to agreeing the processes and approving the design.

As part of HS2's application of the CSM-RA, submissions including the proposed evacuation process are made to HS2's System Review Panel (SRP) together with evidence on the safety of design. This process is subject to ongoing review from an independent CSM-RA Assessment Body. Progressive evidence is presented and where necessary, subject to further independent safety assessment. Compliance of the design with the fire requirements must be demonstrated to an independent Notified Body. Reports from the CSM-RA Assessment Body and the Notified Body are then submitted to the Office of Rail and Road (ORR).

Prior to HS2 being placed into service, the evacuation procedures and associated technical systems must be accepted by both the Fire and Rescue Services and the Office of Rail and Road. HS2 Ltd has been progressively working with these bodies to ensure the final design is compliant with their requirements.

Another recent query relates to the water supply to the Chiltern Tunnel Boring Machines. At present we are discussing water supply requirements with the local water companies and the Environment Agency and are confident we can meet requirements to balance the demand for

water supply to construction with the commitments and legal obligations in place to protect the environment and the domestic supply.

Whilst we will be unable to engage further in detailed engineering and technical questions, our HS2 Helpdesk remains operational all day, every day, and is your first point of contact:

Freephone 08081 434 434; Minicom 08081 456 472; Email: [HS2enquiries@hs2.org.uk](mailto:HS2enquiries@hs2.org.uk).

If you contact us by post, there will be an extended delay in us receiving and responding as we have temporarily closed our offices during the current Covid-19 health crisis.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Chris Rayner', with a stylized flourish at the end.

Chris Rayner

**Director of Infrastructure**