

SSI Applications Group

Approved Discussion Document

DIS183

Implementation of Overrun Detection and Management for IECC

Issue 1

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This document contains 7 pages and was approved at Issue 1 by SSIAG at its meeting of 18/09/2013.

This document forms SSIAG's interim guidance on this topic pending the production of an update to the relevant chapter(s) of the SSI Applications Manual.

Distribution: (this issue only)

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1. DOCUMENT STATUS

This document has been prepared for the SSI Applications Group (SSIAG). Draft 3 was reviewed at the SSIAG meeting on 18/09/2013 and approved in principle subject to minor amendments. It was further recommended that, although implemented for the Reading project, it should only be applied generically within the Thames Valley Signalling Centre (TVSC) IECC control system.

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3. PURPOSE

The purpose of this paper is to gain SSIAG approval of the data constructs and application for Over-run detection to be provided at TVSC for the Reading Outer Relock & Immunisation, Berks & Hants Scheme.

The Network Rail Signalling Route Asset Manager & Operations Representative have both been consulted on this application, including the non provision of an Inhibit Timer or Flashing Inhibit Indication as a reminder to the Signaller and have fully endorsed the proposed application for this non provision.

4. INTRODUCTION

The scheme comprises a relock of the existing E10k interlocking areas (Theale, Towney, Colthrop & Newbury) to a CBI architecture, notably a Westlock system comprising of a CIP, TIF16, TIF17 & TIF18. The existing Classic IECC system architecture located at TVSC will be replaced with a IECC Scalable system.

Compliance with NR/L2/SIG/30009/E420 and DIS138 issue 10 is sought by the project. However both the Signalling Contractor (Siemens) and the Control Centre Contractor (Delta Rail) have confirmed that compliance with DIS 138 issue 10 is not achievable for reasons discussed in section 5.

Therefore the project proposes to implement controls as already commissioned as part of the Reading Area Resignalling Renewals (RSAR) Stage F to provide a consistent application across Reading.

5. CONTROLS PROPOSED

5.1 Control Centre

The Control Centre Contractor has confirmed that Classic & Scalable IECC currently only provides limited functionality against NR/L2/SIG/30009/E420. More precisely, it only currently provides functionality in line with interlocking data written to DIS138 Issue 6.0. IECC Classic and Scalable would both require IECC Code development work in order to be able to comply with DIS138 Issue 10.0. This required development is not achievable within the project timescale.

As currently provided on Reading IECC A, it is proposed to provide SPAD inhibit control and overrun 'resume' controls and indications on the Reading IECC B screens for consistency.

Proposed SPAD Inhibit & Resume controls:

Reading IECC B cannot currently provide the inhibit control as outlined in DIS138, Issue 10 Appendix A, Section A1. To amend the SIL/SIS command to additionally issue a panel request to the interlocking requires an IECC software code development and an associated safety case. Until such time as this is done, any such command would have to be provided via a separate roundel on the screen. This would represent a two stage process for the signaller to apply the inhibit on both the IECC system (via SIL/SIS) and the interlocking SPAD detection system (via associated roundels). There are potential operational issues with this method of working.

There will be a single circle/roundel per SPAD inhibit area displayed on the appropriate overviews and detail views. A stone coloured circle will be displayed when not inhibited and a stone roundel will be displayed when inhibited with no reminders. Panel request Qxxxx(INH) will be issued to interlocking when the signaller requests the inhibit by pressing set on the stone circle. Panel request QXxxxx(INH) will be issued to the interlocking when the signaller cancels the inhibit by pressing cancel on the stone roundel. The SPAD inhibit areas will not have boundaries to define the area of inhibit on the screens providing that they match the agreed SGRC areas.