

NEW EQUIPMENT & SYSTEM APPROVAL PROFORMA

Ref: 08-08-11-103

Note: the prompts given below are only a guide to the information required for approval. Dependent on the type of equipment or system that requires approval delete any section that is not applicable or include additional information if necessary. **Mandatory** fields are marked with an asterisk (*).

1 Equipment or System to be approved *
Dual Gauge (Standard and Broad) Gauge Separation Turnouts with Motor Operated Single Movable Switchblade Designs

2 Originator *

Name: Greg Iro

Company: SIA

3 Introduction *

To facilitate the improvement in transit times through the Tottenham Dynon area, fixed point gauge separators are being replaced with the following types of dual gauge gauge separation turnouts with motor operated single movable switchblade designs as follows:

1. Dual Gauge/M6.9 Flexible Switch Assembly, LH, 53kg rail, for no 8.7 Standard Gauge Turning Out and Broad Gauge Straight.
2. Dual Gauge/M6.9 Flexible Switch Assembly, RH, 53kg rail, for no 7.52 Broad Gauge Turning Out and Standard Gauge Straight.
3. Dual Gauge/M6.9 Flexible Switch Assembly, LH, 53kg rail, for no 7.52 Broad Gauge Turning Out and Standard Gauge Straight.

4 Determination of Need *

The upgrade of the Tottenham Dynon Yard necessitates the removal of existing fixed point gauge separators to enable faster transit times through the Tottenham Dynon area.

The Tottenham Dynon Upgrade Project will install dual gauge separation turnouts with motor operated single movable switchblade designs to replace existing fixed points at the sites listed below:

- Tottenham 17D points on the Brooklyn-Tottenham loop line at chainage 17.124km (BG Turning Out)
- West Footscray 5U points on the main line at chainage 6.185km (BG Turning Out)
- West Footscray 7 points on the local line at chainage 6.185km (BG Turning Out)
- Dynon 157 points on the main line at chainage 4.638km (SG Turning Out)

Fixed points are no longer preferred for main lines in Victoria due to their low operating speeds and excessive maintenance requirements to maintain tight tolerances, as stated on page 5 of the Engineering (Track & Civil) specification – ARTC CoP ETF-00-01 Mixed Gauge Track.

The switchblade designs attached are proposed for these dual gauge gauge separation turnout installations for replacement of fixed points in dual gauge separation turnouts within Victoria in line with the ETF-00-01 specification.

5 Significant Change or Not (as determined by the Manager Standards) *

This change in equipment or system is assessed as MINOR

6 Review Panel (as determined by the Manager Standards) *

- John Furness - Manager Standards
- Ian Domleo – Senior Track and Civil Engineer
- Steve Garner – Infrastructure Manager Victoria
- Third Party Design Review was completed by CMS Global on the 6th September 2007; the report is attached (Design Review, Dual Gauge Turnout TR1 & TR4 Points Conversion). Please also refer to the attached email from Paul Leombruni of CMS Global (08/12/07) and the attached meeting minutes dated 15/01/08 for the closing out of all recommendations listed in the report.

Note: Outstanding as of 15/01/08 is: (1) Addition of VicTrack DMS Numbers; (2) Addition of note for constructors regarding welding of dual gauge rails.




7 Safety

Replacement of the fixed points with movable switchblades reduces the risk of derailment, thereby improving safety. The design complies with current ARTC standards.

8 Performance and Suitability

(i) Use in other rail networks

None in Australia.

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|-------|---|---|-------------------------------------|----|--------------------------|----------------|--------------------------|
| (ii) | Use in the ARTC network | Dual gauge (standard and broad) gauge separation turnouts with movable switchblades are replacing the fixed points in Victorian main lines as stated in the Engineering Specification, ETF-00-01. The proposed design is new to the ARTC network. | | | | | |
| (iii) | Issues arising from usage of the equipment/system | None | | | | | |
| (iv) | Changes required to infrastructure or systems for use of the equipment | Additional Spares Inventory required to be held. ARTC Specification ETF-00-01 Mixed Gauge Track will need to be amended. | | | | | |
| 9 | Reliability | | | | | | |
| 10 | Maintainability | Design and Spares have been agreed to with the Infrastructure Manager Victoria (Steve Garner). Please refer to the minutes for meeting dated 15/01/08 and 05/09/07 attached. | | | | | |
| 11 | Approval * | <p>The following designs are approved for use on the Victorian network:</p> <p>Dual Gauge/M6.9 Flexible Switch Assembly, LH, 53kg rail, for no 8.7 Standard Gauge Turning Out and Broad Gauge Straight Drawing number A1B14717, TKL Rail.</p> <p>Dual Gauge/M6.9 Flexible Switch Assembly, RH, 53kg rail, for no 7.52 Broad Gauge Turning Out and Standard Gauge Straight Drawing number A1B14715, TKL Rail.</p> <p>Dual Gauge/M6.9 Flexible Switch Assembly, LH, 53kg rail, for no 7.52 Broad Gauge Turning Out and Standard Gauge Straight Drawing number A1B14716, TKL Rail.</p> | | | | | |
| 12 | Conditions of Approval * | <p>The two outstanding issues in Section 6 are to be completed.</p> <p><<NOTE: Review Panel may add additional Conditions of Approval>></p> | | | | | |
| 13 | Does the Originator accept the additional Conditions of Approval as set by the Review Panel: | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | N/A | <input type="checkbox"/> |
| 14 | Sign off | ARTC office use only | | | | | |
| | Review Panel: | | | | | | |
| | John Furness |  | | | | Date: 10/6/08 | |
| | Ian Domleo |  | | | | Date: 27/05/08 | |
| | Steve Garner |  | | | | Date: 06/05/08 | |