NEW EQUIPMENT & SYSTEM APPROVAL PROFORMA **Ref:** 11/20001

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** * **Pandrol Hytrel Resilient Rail Pad**						
2	**Originator** * Name: Ken Sherwood Company: Pandrol Australia Pty. Ltd.						
3	**Introduction** * Pandrol's Hytrel resilient rail pads are a two-part rail pad moulded primarily from a thermo-plastic elastomer called Hytrel. The pad is designed to work 'in-bending'. The material, in conjunction with the particular design, allows the pad to provide resilience comparable to a rubber pad but with an increased life expectancy. The pad has also proven to be effective in preventing sleeper skewing under certain circumstances.						
4	**Determination of Need** * This request for approval is to provide a lower-cost, longer wearing alternative to the resilient rubber pads currently in use by ARTC.						
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 • Abbie Thomas – Track and Civil Engineer • Adrian Oorloff – Project Engineer East-West						
7	**Safety** The Hytrel pad maintains the same level of safety as other rail pads that are currently in use.						
8	**Performance and Suitability** The Hytrel pad will be able to perform the same task as the existing rubber pad (Pandrol drawing 9589). The pad will provide similar impact attenuation (44%-47%) to the existing rubber pad currently in use by ARTC (47%). The pad underwent testing of rail clamping force, longitudinal restraint and assembly repeated load test for 3 million cycles as per AS 1085.19-2003 Railway Track Material: Resilient Fastening Assemblies. The assembly including the Hytrel pad completed all tests successfully.						
(i)	**Use in other rail networks** Hytrel pads are currently used extensively in the Transnet (Spoornet) rail network in South Africa and in the Pilbara region of Western Australia.						
(ii)	**Use in the ARTC network** N/A						
(iii)	**Issues arising from usage of the equipment/system** No issues arise from the usage of this equipment. The pad is compatible with existing concrete sleepers and resilient fastening assemblies.						
(iv)	**Changes required to infrastructure or systems for use of the equipment** The use of this pad requires no changes to existing infrastructure or systems.						
9	**Maintainability** Maintenance of the Hytrel pad is covered by existing practices.						
10	**Approval** * The Pandrol Hytrel Resilient Rail Pad is approved for use in the ARTC Network.						
11	**Conditions of Approval** * No conditions.						
12	**Does the Originator accept the additional Conditions of Approval as set by the Review Panel:**	Yes	☒	No	☐	N/A	☐

13 **Sign off**

ARTC office use only

Review Panel:

John Furness		Date: 8/3/2011
Abbie Thomas		Date: 8/3/11
Adrian Oorloff		Date: 8/3/11