

A NUMERATE CRITERION FOR RAIL REPLACEMENT ON MAINLINE BR TRACK

A method has been developed that enables individual sections of CWR (continuously welded rail) track to be assessed as to the cost-benefit of re-railing. The formulae derived in this report have been incorporated into a computer program, allowing the NPV of a proposed re-railing on any mainline track section to be readily evaluated. Instructions for the use of this program are included in the Appendix to the report.

Rail failures are shown to follow definable trends, which enables future costs to be evaluated. The costs considered are:

- The civil engineering repair costs.
- The cost of delays to passengers and freight services.
- The cost of braking and accelerating past a failure.
- The increased derailment potential and associated risk cost.

The effect on track geometry of additional Thermit welds associated with repairs, and the expected benefits from using 120' rails have also been evaluated.