

## The Engineering Safety Risk Assessment Model – Interim Results

The report discusses a project designed to develop and demonstrate a risk-assessment model. The model could be used to analyse and compare the hazards involved in engineering activity on the railway, and quantify the effects of changes to the system in terms of the casualties caused and damage sustained.

A structure for the model is defined and discussed in the report. A global framework is proposed, within which detailed assessments are carried out using a variety of techniques including fault tree and event tree analysis.

The study has examined some historical data, in an attempt to investigate the underlying mechanisms by which secondary and higher order effects take place, when one or more train becomes involved in an event originating from a relatively simple event.

A number of future actions are suggested: to develop the methodology further, produce more reliable input data and validate the model, and to apply the techniques to other areas of risk assessment as required.