

Sandilands Investigation: Strategy and structure

Railway Accident Investigation Seminar

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Running order

- ▶ Strategy and Structure
- ▶ Deployment and site management
- ▶ Analysis and testing
- ▶ Crashworthiness
- ▶ Investigation management and liaison
- ▶ Underlying factors
- ▶ Media and politics
- ▶ Q&A (panel)

Video



Strategy and structure: aims

- ▶ Complete a thorough investigation in a timely manner
- ▶ Keep those who needed to be, particularly bereaved families, informed
- ▶ Maintain staff safety and wellbeing
- ▶ Keep other Branch investigations and activities on track

Day 1

- ▶ Site activity ongoing and likely to be for some days
- ▶ Split Gold three ways:
 - ▶ Ministerial & mayoral liaison, plus site visit – CI
 - ▶ Strategic support to site team (normal gold function) – DCI
 - ▶ Information collection for published/briefing output – PIBSS
- ▶ Appointed FLC
- ▶ Decided RAIB would take tram to Farnborough
- ▶ Decided that whole RAIB management team (MTM) would meet on Day 2

Day 2

- ▶ Site activity ongoing
- ▶ MTM meet:
 - ▶ Went through Large Investigation Checklist
 - ▶ Decide to lead the job from Farnborough (although team will have Derby based members)
 - ▶ Select investigation manager
 - ▶ Select lead inspector
 - ▶ Assign three further inspectors to a dedicated team (FLC, crashworthiness, infrastructure)
 - ▶ Consider part time support for HF, evidence gathering, FLOs, administration (matrix)
- ▶ Started to put trauma management actions in place

Large investigation checklist

Action	Must do?	Who decides?	When?	Who does?	When?
After site phase of major investigations, implement a process of regular senior level external liaison meetings to agree/resolve top level strategic issues. This should include evidence sharing strategy.	?	CI /DCI	After site phase	CI/DCI & IM	TBD
Decide who is; IM, Post site LI, team leaders (including evidence management and admin).	✓	DCI, HOA	After site phase	N/A	N/A
Decide whether to form a Transition Management Group (see below) who would probably only need to meet two or three times if we are sufficiently prepared.	?	CI, DCI	After site phase	DCI, five PIs, HOA, LI(s), LI(i).	Before teams formed

Day 2 to week 2

- ▶ Develop remit, method and top level programme
 - ▶ The RAIB's objectives are to establish:
 - ▶ the sequence of events before and during the accident;
 - ▶ events following the accident, including the emergency response and how passengers evacuated from the tram;
 - ▶ the way in which the tram was being driven and any influencing factors;
 - ▶ the design, configuration and condition of the infrastructure on this section of the route, including signage;
 - ▶ the tram's behaviour during the derailment and how people sustained their injuries;
 - ▶ any previous over-speeding incidents at Sandilands Junction; and
 - ▶ any relevant underlying regulatory management factors.

Day 2 to week 2

► Develop remit, method and top level programme

- Sequence of events
- Incident driver
- Incident driver, driver management & driver competency
- Design, configuration and condition of the infrastructure on this section of the route
- Configuration of similar tram infrastructure & relevant standards
- Previous speeding incidents/accidents
- Safety management
- Equipment testing
- Light/reflection testing/analysis
- Tram's behaviour during the derailment and crashworthiness
- Emergency response
- Physical evidence management
- Witness evidence management
- Document management
- Media communications
- Government liaison
- Statutory organisations SPOCs
- Industry SPOCs

Day 2 to week 2

- ▶ Develop remit, method and top level programme
 - ▶ **Design, configuration and condition of the infrastructure on this section of the route**
 - ▶ track alignment/condition - actual & compliance with relevance standards;
 - ▶ appropriateness of speed limits;
 - ▶ signage/visual cues - actual, compliance with relevant standards, compare/consider differences/similarities with on-road tram operation, mainline railway & bus operation;
 - ▶ signalling - actual, compliance with relevant standards, compare/consider differences/similarities with on-road tram operation and mainline railway;
 - ▶ tram/lineside speed controls/warnings - actual, compliance with relevant standards, compare/consider differences with mainline railway & bus operation;
 - ▶ potential & proportionality of enhancing tram system signage, controls, warning, and signalling relevant to overspeeding;
 - ▶ industry's pre-accident understanding of overturning risk and other risks associated with curve speed limits and potential to pass junction signal at stop;
 - ▶ Role of ORR/HMRI and RSPG in design and approval process; and
 - ▶ HF assistance.

The next 12.5 months

- ▶ Strategic level basic 11 line programme: what, when, who?
- ▶ Stuck to standard RAIB process as far as possible
- ▶ Most adaptations predictable, some reactive
- ▶ Increased CI/DCI involvement, but limited

And then

- ▶ We completed the investigation
- ▶ We reviewed both internally and with others, as appropriate.
- ▶ Still undertaking actions from those reviews

Did we meet our aims?

- ▶ Complete a thorough investigation in a timely manner
- ▶ Keep those who needed to be, particularly bereaved families, informed
- ▶ Maintain staff safety and wellbeing
- ▶ Keep other Branch investigations and activities on track