

ITT2B-Scenario: Incident Investigation

Background:

Railways are designed to perform in a consistent and predictable manner. When something occurs which interrupts such performance it is a potential matter of concern. Incidents which result in accidents and others which cause unacceptable outcomes or have high potential to cause such under slightly different circumstance need to be investigated to determine what caused them and go on to recommend actions to address potential future re-occurrence.

TfL's engineering resources routinely undertake such investigations, but equally have cause to supplement their capability either due to other competing demands for their resources or requiring additional specialist expertise.

The requirement:

The supplier shall demonstrate competence and capability to undertake incident investigation in whole or part in respect of case scenarios within their field of expertise, where they have been engaged for the complete exercise or brought in because of their particular specialist capability to support and supplement TfL's own resources. This shall cover, but is not limited to the following aspects and the supplier should indicate additional elements that they would include in order to achieve the desired outcome;

- work with the client to ensure that the scope of the incident investigation is sufficient to achieve the objective required whilst remaining appropriately bounded to ensure that it can deliver the required outcome within a timely manner
- development of the investigation plan identifying critical client inputs, specialist resources (both own and others) inter dependency of activity and works scope, able to accommodate the uncertainties of the investigation and the various different paths it could follow
- the management and delivery of the investigation along with interim recommendations, actions and interventions considered necessary prior to concluding the commission
- the elicitation and handling of sensitive inputs and findings
- formal reporting and presentation of findings to a diverse stakeholder base

From the four scenarios below, **select ONE only**, and describe in no more than 1500 words contained in 4 sides of A4 (pictures, diagrams etc. may be included in the sides of A4 limit) ;

- ❖ the approach that you would adopt to address the above bullet points and any other additional elements you consider necessary to achieve the desired outcome
- ❖ identify the level of skill and expertise required to address the case scenario
- ❖ evidence the capability to service this scenario through the resources and skills retained or accessible to your organisation

Scenarios:

Scenario one

A passenger fell in front of a train. Emergency services were dispatched to the scene. Normal protection arrangements were made prior to emergency services personnel going onto the railway, with traction current in the area turned off and short-circuiting devices being deployed. A member of the London ambulance service working on scene (under the train) received an electric shock, they fortunately survived the incident but there were burn marks on their arm. Other members of the emergency services also reported receiving a tingling sensation whilst working under the train despite traction current in the section been switched off and the train systems shutdown.

The incident investigation should establish the events of the incident, the source of electric shock, making recommendations to prevent a re-occurrence of any such incident.

Scenario two

An engineer's train derailed on plain line track in a section of the tube railway whilst operating during engineering hours. Significant damage was caused to the train and infrastructure resulting in severe disruption to operational service.

The incident investigation should establish the events of the incident, identify why the incident occurred in terms of immediate underlying root causes and any contributory factors, making recommendations to avoid a recurrence. The investigation should identify any wider potential for similar latent conditions to exist and recommend action to mitigate to tolerable levels.

Scenario three

A passenger service train operating in automatic mode derailed as it passed over a set of points in a complex track layout having just negotiated a series of tight radius curves. The amount of traffic operating on this section of railway has progressively increased over the years resulting in the need for more frequent maintenance.

The incident investigation should establish the events of the incident, identify why the incident occurred in terms of immediate underlying root causes of any contributory factors, making recommendations to avoid a recurrence.

Scenario four

A fire in an open section of the operational railway, where Network Rail and London Underground jointly operate, damaged traction power, signalling and telecommunications cables, resulting in significant disruption to the railway. It caused extensive damage to equipment which required mobilisation of large quantities of additional resources to both deal with the immediate incident and its aftermath.

The incident investigation should establish the events of the incident; identify why the incident occurred in terms of immediate, underlying root causes and any contributory factors, making recommendations to avoid a recurrence. In addition it should review the formal incident management arrangements and the adequacy of the immediate operational response.