#### Recommendation Status Report: Collision with debris from bridge GE19 near London Liverpool Street

This report is based on information provided to the RAIB by the relevant safety authority or public body.

The status of the recommendation(s), as reported to us, are described by the following categories:

#### **Key to Recommendation Status**

Open (replaces Progressing and Implementation On-going)	Actions to address the recommendation are ongoing.		
Closed (replaces Implemented, Implemented by alternative means, and Non- implementation)	ORR consider the recommendation to have been taken into consideration by an end implementer and evidence provided to show action taken or justification for no action taken.		
Insufficient response:	The end implementer has not provided sufficient evidence that the recommendation has been taken into consideration, or if it has, the action proposed does not address the recommendation, or there is insufficient evidence to support no action being taken.		
Superseded:	The recommendation has been superseded either by a newer recommendation or actions have subsequently been taken by the end implementer that have superseded the recommendation.		
Awaiting response:	Awaiting initial report from the relevant safety authority or public body on the status of the recommendation.		

RAIB concern over the way that an organisation has responded to a recommendation are indicated by one of the following:

Red – RAIB has concerns that no actions have been taken in response to a recommendation.

Blue – RAIB has concerns that the actions taken, or proposed, are inappropriate or insufficient to address the risk identified during the investigation.

White – RAIB notes substantive actions have been reported, but the RAIB still has concerns.



Report Title	Collision with debris from bridge GE19 near London Liverpool Street		
Report Number	22/2009		
Date of Incident	28/05/2008		

Rec No.	Status	RAIB Concern	Recommendation	RAIB Summary of current status
22/2009/01	Closed - I	None		ORR has reported that Network
				Rail has taken actions in response
			Network Rail should review its Safety Management System, and	to this recommendation.
			procedures, to satisfy itself that the following points are covered before	ORR proposes to take no further
			approving construction work, particularly by third-parties, on or over the	action unless they become aware
			operational railway:	that the information provided
			a. The requirement for an approved design, method statement and risk	becomes inaccurate.
			assessment for any remedial activity involving load-bearing temporary	
			works. This should include consideration of a range of failure modes,	
			and inspection against known parameters after the structure or	
			temporary works have been knowingly disturbed (paragraph 311a);	
			b. The means of safely adjusting the horizontal position of a structure	
			should this become necessary (paragraph 311b);	
			c. The requirement to specifically consider the risks arising from the	
			use of unrestrained low-friction surfaces, such as PTFE, which	
			may be subjected to unpredicted lateral loads and disturbing forces	
			during construction activity. This should include the reduction in the	
			coefficient of friction which can occur when a sustained horizontal	
			force is applied (paragraph 311c);	
			d. The means of securing permanent formwork and other construction	
			materials, to protect against sudden or unplanned structural	
			movement (paragraph 311d);	
			e. The need for method statements to contain accurate information on all	
			construction stages, and to consider the effects of thermal movement	
			where structures are supported on bearings (paragraphs 312a and	
			312e);	
			f. The need for contractor's risk assessments to include consideration	



			of low probability high impact risks associated with temporary works (paragraph 312b); g. The need for independence in the routine inspection of complex temporary works, which should not be delegated to the organisation responsible for providing them (paragraph 312c); h. The means to prevent rain water collecting directly above 25 kV electrification equipment due to the risk of flash-over if the water is released in an uncontrolled manner (paragraph 314e); i. The requirement for the intermediate certification of structures, including temporary works, for which the existing Form E process may be inadequate (paragraph 316); and j. The benefit to all parties on major projects of adopting a common categorisation for risk assessments, to enable a coherent risk profile to be generated and to avoid the risk of confusion (paragraph 322).	
22/2009/02	Closed - I	None	London Underground Limited, Rail for London, the Heritage Rail Association, the Light Rail Engineering Group and Northern Ireland Railways should establish processes so that information is available to any potential suppliers of similar projects or assets regarding the issues raised within this report.	ORR has reported that London Underground Limited, Rail for London, the Heritage Rail Association, the Light Rail Engineering Group and Northern Ireland Railways have taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.
22/2009/03	Closed - I	None	Network Rail should establish procedures so that information is available to operations staff where construction activities could reasonably affect the safety of the railway. These should include, in particular:  a. the provision of emergency contact details for identified project representatives out-of-hours (paragraph 315); and	ORR has reported that Network Rail has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.



			b. information on the location of each site, and the signal numbers necessary to protect the line (paragraph 324).	
22/2009/04	Closed - NI	None	Network Rail should expand NR/L2/OCS/250, the National Emergency Plan to:  a. make provision for maintaining or extending the command structure in place following the exit of the emergency services from the site to ensure that post-incident activities are managed properly (paragraph 318);  b. reinforce arrangements for managing non-railway organisations during the incident recovery phase and prevent persons being exposed to risk due to a lack of site coordination (paragraph 314d); and  c. require route controllers to positively confirm what trains are involved in an incident, establish the location and ensure communication with all trains requiring assistance (paragraph 319).	Network Rail has carried out a review in response to this recommendation and concluded that its existing arrangements cover the intent of the recommendation. Network Rail propose no further action. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.
22/2009/05	Closed - I	None	Network Rail should enhance the incident management training given to operations staff to reflect the requirements of Recommendation 4.	ORR has reported that Network Rail has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.
22/2009/06	Closed - I	None	The Health and Safety Executive should:  a. draw the attention of the Standing Committee on Structural Safety (SCOSS) to the issues identified in this report regarding the safe use of PTFE in construction to ensure a wider promulgation amongst the civil engineering community (paragraph 311c); and  b. approach companies known to be involved in moving large loads	HSE has reported that it has reported that it has completed actions taken in response to this recommendation. HSE proposes to take no further action unless they become aware that the information provided becomes inaccurate.



			using PTFE to check they have appropriate guidance and internal procedures to address the safe use of PTFE (paragraph 328).	
22/2009/07	Closed - I	None	National Express East Anglia should review their procedures relating to the appointment of a TOLO, or other site representative, in response to major railway incidents involving passengers (paragraph 321).	ORR has reported that National Express East Anglia has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.