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## **Delay Attribution Board**

### **Guidance No. DAB-29**

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#### **1. Introduction**

- 1.1. The Delay Attribution Board (the Board) received a request for guidance in connection with the Attribution of TRUST incident 999852 '2D36 ADD activation l/s Limehouse' created on the 15<sup>th</sup> June 2011.
- 1.2. The Board received the joint request for guidance from c2c Rail Limited (c2c) and Network Rail Infrastructure Ltd, Anglia Route, (Network Rail) on the 23<sup>rd</sup> February 2012.
- 1.3. The Board was asked the following:
  - 1.3.1. DAB is asked to give guidance in this reference as to which is the correct attribution, for delay associated with the activation of the automatic dropping device on vehicle 357045 approaching Limehouse station.
  - 1.3.2. DAB is asked to provide guidance as to the correct attribution for delays associated with damage to pantograph equipment where no object strike was reported and it is unknown where the foreign body/object originated from.

#### **2. Information Received**

- 2.1. The parties have discussed the issues relevant to this matter, in accordance with the agreed procedures for obtaining agreement in relation to a disputed attribution as set out in Part B of the Network Code. However, they have been unable to reach a common position. The parties are, therefore both agreed that the issues raised should be referred to the DAB for guidance and have prepared a joint submission accordingly, incorporating their respective interpretations.

#### **3. Factual Background to the incident**

- 3.1. The parties provided the following agreed facts:
- 3.2. That at 16:26 on 15<sup>th</sup> June 2011, the c2c operated train service 1B63 15:20 departure from Shoeburyness, arrived at London Fenchurch Street, its booked terminus, on time and having completed its journey without incident.
- 3.3. The train was formed of two, four-carriage Class 357 units – namely 357045 (leading) and 357009 (trailing).
- 3.4. At 16:37, 2D36 (16:37 from London Fenchurch Street to Grays), the booked return working of 1B63, departed London Fenchurch Street station on time.
- 3.5. The train was formed of four-car multiple unit 357009, (leading) and was coupled to four-car multiple unit 357045 (trailing).

- 3.6. At 16:39 a report was received by the Shift Signalling Manager (SSM), located at Upminster Integrated Electronic Control Centre (IECC) from the Romford Electrical Control Room that overhead line equipment Sections 507 and 508, located between Fenchurch Street and West Ham had recorded multiple trippings at 16:39.
- 3.7. That Overhead Line Equipment Section 508 includes the section of the line being traversed by 2D36 at the time of its forward motion.
- 3.8. That at 16:44 the driver of 2D36, contacted the signaller on Upminster IECC Workstation 1 from the Signal Post Telephone at signal UR117 reporting that the rear unit, 357045, had experienced an Automatic Dropper Device (ADD) activation at on the approach to Limehouse.
- 3.9. That it is acknowledged that the occurrence of the overhead line tripping of Sections 507 and 508 is not coincidental with the occurrence of the ADD Activation on 2D36.
- 3.10. That the driver of 2D36 reported to the Signaller that he had checked his train and the Overhead Line Equipment (OHLE) and he could not see any damage to either the train or the infrastructure.
- 3.11. That at 1649 the SSM contacted the Overhead Line Supervisor located at West Horndon informing them of the incident and requested his staff to attend the site.
- 3.12. That the driver of 2D36 was instructed by the signaller, following consultation with the c2c Train Service Manager, to draw forward, to Limehouse station, taking power through the pantograph on only the leading unit - and proceed to detrain the passengers on board and continue forward to East Ham Electrical Multiple Unit Depot ("East Ham Depot") as Empty Coaching Stock.
- 3.13. That, per the requirements of the Rule Book, trains were required to operate at caution until the overhead line staff had inspected the infrastructure.
- 3.14. That two train services, namely, 5Y44 (1642 East Ham Depot – Fenchurch Street) on the adjacent Up Main Line and 1B40 (1645 Fenchurch Street – Shoeburyness) on the Down Main Line were both cautioned and instructed to inspect the overhead line on the affected Down Main Line.
- 3.15. That drivers of both trains reported to the Upminster Work Station 1 Signaller that there was no visible damage to the OHLE.
- 3.16. That OHLE staff conducted a visual inspection of the infrastructure observing from the drivers front cab onboard 2D49 (1724 Pitsea – Fenchurch Street) on Up Main Line and although was unable to see any damage, requested a further visual examination on board a train on the Down Main Line to complete his examination.
- 3.17. That at 19:18, having undertaken a visual examination from the return working 2D48, OHLE staff declared that the infrastructure was in order and normal running over the affected section was resumed.
- 3.18. That upon later examination of Unit 357045 on arrival at East Ham Depot, it was concluded that the ADD operated due to an air

- 3.19. That the incident, referenced with TRUST Number 999852 of 15<sup>th</sup> June 2011 is currently disputed, attributed with Cause Code M2 (ADD Activation) and Responsible Manager code MHTB, referring to the c2c Class 357 Fleet.
- 3.20. In addition to the information above the Board had asked the following question by correspondence in advance of the meeting:

“Whether the equipment which recorded the multiple trippings of the OHLE in sections 507 and 508 identified, occurred on the up or down line, or simply the route section in which they occurred?”

Network Rail provided the following response and the associated voice recordings:

“Attached the voice comms for the initial report of the section tripping, the first conversation (Romford ECRO – Upminster Signaller 1639hrs) only refers to the section 507 and 508 which is Fenchurch Street to West Ham, the trains the Signaller refers to are on both the Up and the Down road. The second conversation (Romford ECRO – AICC Incident Controller 1641hrs) reporting the multiple tripping confirms the tripping was on both the Up and Down roads”.

#### **4. c2c View**

- 4.1. That the notes of the Level 4 Attribution Meeting, attending by representatives from both parties and circulated on 24<sup>th</sup> October 2011, note that both of the parties agree: “that the flashover was caused by an unknown object of unknown origin”.
- 4.2. That in an email to the c2c Engineering Department on 02<sup>nd</sup> September 2011, a Mr. David Frederick, the Rail Vehicle Interface Engineer (Passenger), for Network Rail (Anglia) did state that: “There was evidence of a burn hole on the roof of the unit. With regards to the tripping it appears that this was caused by an unknown object which had come into contact with the OHL/Roof equipment of unit 357045 which was not found during investigation”.
- 4.3. That Delay Attribution Guide 4.24.2 (h) states that attribution should be coded JX, with Responsible Manager IQ## if: “Network Rail and Operator agree that a train has struck an unidentified obstruction on the line and Infrastructure Maintainer were required to attend (not vandalism)”.
- 4.4. That c2c considers that “the line” in the Delay Attribution Guide refers to not only the track and rails, but the entire envelope within which a train dependant upon Overhead Line Equipment for power can be expected to run.

- 4.5. That determination of DAB19, states in Paragraph 7.2 that “ Network Rail ... is responsible for... ensuring that the kinetic envelope of rolling stock approved for use on a route is free from lineside obstructions”.
- 4.6. ADP30 in Paragraph 33, considered that a train can encounter a “foreign body” which “might result from a number of circumstances including:..... (33.2) an obstruction of the line, foul of the swept envelope, which was struck and projected up into the area where the damage occurred”.
- 4.7. ADP30, in Paragraph 38.2 states that: “The operation of the Delay Attribution process, and of Schedule 8, does not require the establishment of detailed chains of causality, and is not about the allocation of liability; it merely requires, in respect of the Delay Attribution process, that Delay be attributed to one of the parties involved, and in respect of Schedule 8, to one of the parties to the relevant Track Access Contract, in each case on the basis of the greater **probability** (Note: Emphasis provided in ADP30 determination) of responsibility”.
- 4.8. That comments from Network Rail referred to in Sections 4.2 and 4.3 indicate an acknowledgement that it is most probable that a foreign object resulted in the reported overhead line tripping, leading to a flashover, causing burning to the pantograph air hose on Unit 357045 and the correct operation of the ADD.
- 4.9. That, given the levels of heat involved in such a flashover, any such foreign object was likely to have been burned such that it would not have been identified later.
- 4.10. It would appear that whatever resulted in the Overhead Line Tripping of Sections 507 and 508, contributed to the ADD Activation.
- 4.11. The attribution as current makes no reference to the overhead line tripping of Sections 507 and 508.
- 4.12. Network Rail has not provided an explanation for the overhead line tripping, reported to have occurred at 16:39.
- 4.13. That the Delay Attribution Guide Section 4.16.11 states that: “Code I2 should be used where trips on OHLE (not pantographs) occur and no known reason can be found”.
- 4.14. That the incident should be coded to Network Rail, either with Delay Cause Code I2 or Delay Cause Code JX.

## 5. Network Rail View

- 5.1. Network Rail has used all sources of information available to the company to investigate the cause of delay and found no known cause within Network Rail.
- 5.2. Network Rail was advised by c2c that Automatic Dropping Device activation had occurred on unit 357045 which was the trailing pantograph of 2D36 1637hrs Fenchurch Street – Grays the leading unit was worked by 357009 and no activation occurred on this pantograph. There were no reported defects with the leading pantograph.
- 5.3. 2D36 was following 2R50 1633hrs Fenchurch Street – Pitsea and 2N10 1630hrs Fenchurch Street – Laindon on the down line passing Limehouse at 1637hrs and 1634hrs and passing on the up line 2B41 1535hrs Shoeburyness – Fenchurch Street passing Limehouse at 1638hrs. No reports were received from these services of any obstruction on the OHLE.
- 5.4. The driver of 2D36 did not report seeing or striking any object on the OHLE when he spoke to the Upminster Signaller.
- 5.5. The drivers of 5Y44 1642hrs East Ham Depot – Fenchurch Street and 1B40 1645hrs Fenchurch Street - Shoeburyness were contacted by the Signaller to observe the OHL at Limehouse. No fault found reported by both services.
- 5.6. The Network Rail Fault Management System reveals there were no reported infrastructure failures for the location on 15<sup>th</sup> June 2011.
- 5.7. It should be noted that there was no damage identified to any part of the OHLE or the pan head of unit 357045.
- 5.8. The hole in the air pipe was a burn hole caused by a flashover between the pantograph arm and the roof of the train, Network Rail believe it was this flashover which caused OHL section 508 to trip.
- 5.9. Once 2D36 had dropped the pantograph on unit 357045 the OHL section 508 which had tripped reset and had no further problems were reported.
- 5.10. In section 4.4.3 of the Delay Attribution Guide reference is made to the point of interface between the electrical supply infrastructure and the train, in this case there was no impact as a result of an object on the OHLE. If Network Rail were to follow the flow chart it would lead us to a Delay Code not the responsibility of Network Rail.

- 5.11. The event was wholly train borne and can not be associated with the infrastructure.
- 5.12. ADP30 considered the fact that there had been a possession the night before in the area the train had failed and although other trains had preceded 3K21, 319007 was the first train equipped for third rail electrification to pass through and it was possible an obstruction had been left foul of the swept envelope. *[Comment by the Board – the Board took this to mean that the relevant issue was the swept envelope of the train and not the form of current collection.]*
- 5.13. In this case the trains preceding 2D36 had all been using OHL current collection equipment and indeed the leading unit (357009) had passed through without issue, this indicates that the OHLE was clear of obstruction and fault.
- 5.14. Network Rail refers to paragraph 8 of AD 39 which states '***The Committee considered that AD27 had established a distinction that was of direct relevance to this case, namely that the (largely mechanistic) process that, in accordance with the terms of the Track Access Agreement, attributes an Incident that causes Delay to one or other of the contracting parties, is something totally different in kind from the discovery and attribution of the cause of that Incident. Attribution to the right contracting party is a function of the operation of Schedule 8 in relation to quantified Delays that have occurred, and as such is the proper province of the TRUST Delay Attribution Guide. Establishing possible chains of causality, relates, speculatively, to matters which may or may not have lead to Delay, and which are not therefore themselves Delay Incidents; as such they have no part in the operation of Schedule 8, nor are they within the province of the TRUST Delay Attribution Guide***'. In this particular case, Network Rail do not know how or what object came to be in the pantograph causing the flashover and damaging the air pipe and are therefore speculating on matters that may or may not have led to the delay of the train. What Network Rail does know is that it is the train that was reported to have a problem and there was no delay incident until the train stopped.
- 5.15. Network Rail believes that the circumstances of the incident is covered by Schedule 8 Paragraph 5.3:

Responsibility for the Minutes Delay and Cancelled Stops on a day caused by incidents for which the Train Operator is allocated responsibility pursuant to this paragraph 5.3 shall be allocated to the Train Operator. Unless and to the extent otherwise agreed, the Train Operator shall be allocated responsibility for an incident other than a planned incident (as defined in paragraph 5.7) if that incident:

(a) is caused wholly or mainly:

(iii) (whether or not the Train Operator is at fault) by any act, omission or circumstance origination from or affection rolling stock, operated by or on behalf of the Train Operator (including its operation), including any such act, omission or circumstance origination in connection with or at any station (other than in connection with signalling under the

control of Network Rail at that station or physical works undertaken by Network Rail at that station), any light maintenance depot or any network other than the Network.

5.16. Network Rail is not in a position to mitigate delays occurring as a result of objects which may have originated in the train's pantograph and not originating from Network Rail Infrastructure.

5.17. Network Rail believes that the TRUST incident should be coded to M2 as no evidence or facts have been submitted by C2C to prove the foreign body/object which caused the flashover originated from Network Rail Infrastructure.

## **6. Locus of the Board**

6.1. The Board reviewed its locus in respect of providing guidance on this issue. The Board's locus to provide guidance is set out in the Network Code Conditions B2.4.3 and B6.1.3.

6.2. The Board noted that while it could offer guidance to the parties as to how incidents of this nature should be attributed, this guidance was not binding on any party. If any of the Access Parties were dissatisfied with the guidance provided they could refer the matter to Access Dispute Adjudication (ADA).

6.3. If the issue were referred to ADA, then an Access Dispute Adjudication Panel would be formed to consider the dispute. In doing so, the ADA Panel would take account of the guidance provided by the Board but was not bound by it. The ADA Panel would then make a determination that was binding on the parties concerned. This document is therefore being prepared as the vehicle for providing the guidance and the reasons for how the Board arrived at its position both to the parties and, if necessary, to the relevant ADA Panel.

6.4. The Board agreed that it should seek to provide guidance that meets with the delay attribution vision:

“For all parties to work together to achieve the prime objective of delay attribution – to accurately identify the prime cause of delay to train services for improvement purposes”.

6.5. The Board would need to consider if, in providing guidance, an amendment to the Delay Attribution Guide should be proposed, to improve clarity.

## **7. Consideration of the Issues**

7.1. The Board at its meeting on 20<sup>th</sup> March 2012, considered the request for guidance and took account of the following:

7.1.1. The facts provided by both Network Rail and c2c in connection with the incident disputed between the parties and their requests for guidance.

7.1.2. The oral information provided by the representatives of Network Rail and c2c at this Board meeting.

7.1.3. The guidance provided by the Delay Attribution Guide.

7.2. In coming to its conclusion the Board regarded the following points as particularly relevant:

- 7.2.1. The parties have not disputed the facts of the incident.
- 7.2.2. The parties had made no allegations that either party had failed to mitigate any delay associated with the incident.
- 7.2.3. The parties had agreed that the overhead line tripping and the occurrence of the ADD activation were not coincidental.
- 7.2.4. That once the OHL section which had tripped was reset there were no further problems.
- 7.2.5. That an unidentified object had been present in the vicinity of the OHL/roof equipment of the unit.
- 7.2.6. That the unidentified object had been the cause of a flashover/arc that resulted in the burn hole in the pantograph air pipe and the roof of the unit.
- 7.2.7. That the source/origin of the unidentified object was not known and that there were many hypotheses which could be applied, all of which were speculative as there was no evidence presented sufficient to determine, on the balance of probability, the source or nature of the object.
- 7.2.8. That there was no report of the driver seeing or striking any object.
- 7.2.9. That the principles given in Section 4.25 of the Delay Attribution Guide for attribution where 'No Fault is Found' were not applicable as faults were present and protection devices (ADD and OHL circuit breakers) had operated correctly.

## **8. Guidance of the Board**

8.1. Based on the information presented the Board unanimously agreed the following:

- 8.1.1. That two prime incidents had occurred sequentially (the OHL tripping and the ADD activation) and that the prime cause of the incidents had not been and could not be established or agreed.
- 8.1.2. That the parties should seek to share responsibility for delays associated with incident 999852.

8.2. The Board agreed that the Delay Attribution Guide would benefit from the addition of guidance for attribution of these kinds of incident. Taking into account previous requests for guidance, there were three incidents of this type for which the Secretary should make recommendations for a proposed amendment as follows:

- 8.2.1. Where pantograph faults occur and there is evidence to suggest the presence of an object but no object is identified and the source of the object is not known.
- 8.2.2. Where pantograph faults occur and the source of an identified object is not known.

8.2.3. Where no pantograph faults occur and trains stop to remove identified objects from the vicinity of the pantograph.

This guidance was approved by the Delay Attribution Board on 17 <sup>th</sup> April 2012.	John Rhodes (Chairman)
Signature:	