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Chairman
Delay Attribution Board
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NOTICE OF APPROVAL OF AMENDMENTS TO THE SEPTEMBER 2018 DELAY ATTRIBUTION PRINCIPLES AND RULES

1. This notice is given under Condition B2.7.2 of the Network Code. Terms defined in the Network Code have the same meaning in this notice. References in this notice to Conditions are references to Conditions of the Network Code.

2. On 31 July 2019 the Delay Attribution Board (DAB) submitted Proposals for Amendment to the Office of Rail and Road (ORR) in accordance with Condition B2.7.1.

3. The Secretary to the DAB has confirmed the reasons for the proposed amendments and these have been accepted by the DAB following the consultation process, as required by Condition B2.7.1.

4. For the purpose of Condition B2.7.2. ORR now gives notice to the DAB that it approves the Proposals for Amendment. All amendments included within the proposal will take effect from 15 September 2019.

5. A schedule of the approved Amendments to the Delay Attribution Principles and Rules is attached to this notice.

Yours sincerely

GERRY LEIGHTON
Duly authorised by the Office of Rail and Road

Schedule 1

Proposal for Amendment: DAB P320 – Passenger Overcrowding

Remove Paragraph C1.6 and C1.7 from the DAPR

Amend DAPR N2(i) to read as follows: -

i	Station overtime caused by passenger volumes boarding and alighting (no causal incident identified for increased passenger numbers - see notes at foot of table)	RB	Operator of Train involved (R##*)

Amend DAPR N2(j) to read as follows: -

j	Station overtime caused by increased passenger volumes boarding and alighting due to a planned event (e.g. sports fixtures, concerts)	R7	Operator of Train involved (R##*)

Insert new N2(k) as follows: -

k	Station overtime caused by increased passenger volumes boarding and alighting that is due to: - That train's own late running; or Another identified prior scheduled Responsible Train which is delayed or cancelled that serves the same station or on the same line of route.	YX	Prime Incident causing the train to be late or cancelled

Insert new N2(l) as follows: -

l	Station overtime caused by increased passenger volumes boarding and alighting due to passenger displacement from another line of route (incident determined – see notes at foot of table)	Direct Delay to the related Causal Incident	Prime Incident causing the train to be late or cancelled

Insert new N2(m) as follows: -

m	Station overtime caused by increased passenger volumes boarding and alighting due to passenger displacement from another line of route (incident not determined – see notes at foot of table)	RX	Operator of Train involved (R##*)

Due to the above insertions, re-letter the following circumstances from the current N2(k) onwards to start from N2(n).

Add additional note to the foot of table N2 as follows: -

Note: In respect of circumstances 'l' and 'm' in table N2 above the identification of the Causal Incident should be concluded by consideration of the following points: -

- That the delay is the result of an incident that caused an unplanned closure of an alternative route.
- That the transfer of passengers from any off-route location in relation to the train affected is within the agreed ticket acceptance for the line of route and location that the parties have agreed in relation to the Causal Incident.
- Relevant performance data or other appropriate evidence is provided to demonstrate that the train delayed does not generally suffer overcrowding or delay at the station(s) in question.
- Where the Causal Incident is identified as being the Responsibility of another Operator the evidence must be provided to enable reattribution to be made within the relevant Contractual Timescales.
- Where the Causal Incident cannot be determined (e.g. multiple incidents created for one event or multiple events) then Delay Code RX should be utilised.

Amend the reference to circumstances 'ah to ak' in the first note under table in N2 to reflect the renumbering above so to read 'aj to am'

Designate the four notes under table N2 as Note 1 to Note 4 respectively for improved clarity and formatting.

Add Delay Code RX into Section 5

RX	Station delays as a result of overcrowding due to unplanned events or incidents (e.g result of line or station closure) where casual event is not determined	UNPL EVENT

Amend Delay Code R7 Description as follows: -

R7	Station delays as a result of overcrowding due to planned events (e.g. sports fixtures, concerts)	PLND EVENT

Proposal for Amendment: DAB P321 – DAPR Clarifications

a) YJ Proposal

Amend definition of YJ in Section S to read: -

Late arrival of booked inward train-crew (where the inward and outward trains worked by that train-crew are operated under the same Track Access Contract)

b) OW Proposal

Amend definition of OW in Section S to read: -

Connections held where the Prime Incident causing delay to the incoming train is a FOC responsibility incident and the next departing service is scheduled to depart less than 60 minutes later than the train being held.

Amend N2 (f) to read: -

f.	*Waiting passenger connections within the TOC/Network Rail Connection Policy, where the prime incident causing delay to the incoming train is a FOC responsibility incident and the next departing service is scheduled to depart 60 minutes or more after the train being held*	*YL*	*Prime Incident causing incoming train to be late at that point. If the next departing service is scheduled to depart less than 60 minutes after the train being held (connecting service) then a separate incident is to be created and attributed to Network Rail (OW/OQ**)*

c) Surfing Proposal

Add new circumstances Q4.1(n and o)

n.	*Persons surfing on or alighting directly from the outside of a passenger or freight train where access was obtained to that train whilst on the Network Rail network (including stations)*	*XA*	*Network Rail (XQ**)*
o.	*Persons surfing on or alighting directly from the outside of a passenger or freight train where access was obtained to that train whilst off the Network Rail network.*	*AZ / VA*	*Train operator of the train concerned (A##* / V##*)*

Clarify circumstance Q4.1(h)

h.	*Trespass on Network Rail network infrastructure where access is gained by persons exiting directly from within a passenger train without permission.*	*VA*	*Train Operator of train concerned (V##*)*

Amend B7.2 Primary Delay to be Direct Delay and to read: -

B7.2 Direct Delay

A Direct Delay is a delay to a train that results from a Causal Incident that directly delays the train concerned, irrespective of whether the train concerned was running to its schedule (schedule includes booked platform or line) at the time the incident occurred, i.e. the delay is not a Reactionary Delay. Direct Delay should ***not*** *be attributed to a Responsible Train or allocated a Y* Code When the incident is train related (rather than infrastructure related) the delay to that train (only) is often referred to as being the primary delay in Reporting terms.*

Amend B7.3 Reactionary Delay to read: -

B7.3 Reactionary Delay

A Reactionary Delay is a delay to a train that is as a result of an incident that indirectly delays the train concerned, i.e the delay to that train is the result of a prior delay to the same or any other train. Reactionary Delay should be attributed to the Responsible Train utilising the relevant Y Code.*

Renumber current DAPR paragraphs B7.4 through to B7.7 to read B7.3.1 to B7.3.4 respectively

Add new B7.4 Causal Incident and to read: -

B7.4 Causal Incident

The Causal Incident is the greatest impacting incident (total delay or Reliability Event allocated to a train in that incident) which causes Reactionary Delay to itself or another train at any given point.
~~*Any delays incurred are considered Reactionary Delay and should be attributed to the Causal Incident*~~

Add new B7.5 Responsible Train and to read: -

B7.5 Responsible Train

The Responsible Train is the train that is identified as being the cause of a Reactionary Delay to either itself or another train and is linked to the Causal Incident by identification of the Responsible Train utilising the relevant Y* Code.

Add new B7.6 Cumulative Delay to read: -

B7.6 Cumulative Delay

Cumulative Delay is where a train experiences two or more separate delays that are identified as being Direct Delays with the same Prime Cause on that train. For examples of what does (and doesn't) constitute Cumulative Delay, refer to examples set out in Paragraph E4.7.

Add new B7.7 Minutes Delay to read: -

B7.7 Minutes Delay

Minutes Delay is the ~~incremental lateness~~ time lost either between two Recording Points or late departure from a Recording Point based on the actual times measured against the planned times (Working Timetable). See also Paragraphs B5.1 and B5.2.

Add new B7.8 Reliability Event definition (taken from current DAPR A4) to read:-

B7.8 Reliability Event

When a train is not able to make all the booked calls shown on the train schedule this is referred to in this document as a Reliability Event. A Reliability Event can occur in the following circumstances: -

- A train is cancelled for its full journey;
- A train is cancelled for part of its journey;
- A train is diverted from its booked route and fails to call at a booked stop;
- A train runs through a station it is booked to call at but does not stop.

Remove DAPR A4 entry covering Reliability Event

Renumber the subsequent DAPR Sections A5 to be A4; A6 to be A5 and A7 to be A6 respectively.

Proposal for Amendment: DAB P323 – Regulation Flow Chart

K11 Flow Chart covering the attribution principles for Train Regulation


Regulation Event
Was the Regulation performed by ARS / SARS / TMS?
YES
Refer to DAPR Flow Diagram K10
NO
Were both trains Running on time?
YES
Does the train plan physically work?
YES
Is it a Simplifier Error?
YES
Delay Code OQ / QQ as appropriate
NO
Refer to DAPR Flow Diagram L1.3
NO
Delay Code OB
NO
Was the train regulation due to Network Rail Control instruction?
YES
Was the instruction as a direct result of service management for an ongoing incident ?
YES
Attribute to Incident
NO
Delay Code OD
NO
Was one or both trains running early ? (See Section K7)
YES
Could the early running train have been held prior to or at the point of delay occurring?
YES
Delay Code OB / OC (where train should have been held)
NO
NO
Was the early running as a direct result of an ongoing incident?
YES
Attribute to Incident
NO
Was the early running a direct request from an Operator?
YES
Delay Code OC (as not agreed through Control)
NO
One or both trains running late
Is there a specific Regulation Instruction for the trains or location involved? (See Section K3)
YES
Were the specific Regulation Instructions for the trains or location involved applied?
YES
Delay Code YG. Attribute to greatest Causal Incident on the latest of the trains involved
NO
Delay Code OB
NO
Was Regulation in line with general Regulation Policy for the trains or location involved?
YES
Would 'reverse' decision have reduced overall impact? (see Section K3)
YES
Delay Code OA
NO
Delay Code YA / YB as appropriate. Attribute to greatest Causal Incident on the latest of
Note: Regulation of trains running with no schedule:-
The Special Train is run as a priority and with no schedule. Any resulting delays should be coded to OZ (See DAPR E6)
Trains running with no schedule as part of service recovery / failed train recovery should be treated as being under 'Control Instruction' for the purposes of this flow diagram (also refer to DAPR M3)
Any other train running with no schedule should have the same principles as early running applied for the purposes of this flow diagram.(also refer to DAPR L1.8)

Proposal for Amendment: NR P201 – DAPR Section O

Remove the entire content of Section O of the DAPR and replace with that as set out below.
Amend the Descriptions and Abbreviations of the I* and J* Delay Codes in Section S as set out below.

SECTION O: ASSET FAILURES AND INFRASTRUCTURE INCIDENTS O1

Infrastructure Attribution Principles:

O1.1 Whilst Maintenance teams require attribution of incidents at a level of detail not ordinarily applied elsewhere in the DAPR, the DAPR requires attribution of delay incidents to the Prime Cause of delay. It is therefore important that the Delay Code used represents how the asset fault manifests itself as the cause of delay (and not the Root Cause of that failure)

Asset reliability failures that are as a result of:-

- Inadequate or poor maintenance; or
- Renewals being required (i.e a previously recognised requirement); or
- A Component failure that is not maintenance preventable;

should not change the attribution principles and incidents should be attributed as per this section O of the DAPR.

O1.1.1 Faults or failures deemed to be the result of Infrastructure Project work should be attributed as set out in this section. The responsibility of the failure or fault should not influence the Delay Code.

O1.1.2 Any asset faults or failures relating to rodent damage, insects, molluscs, arachnids or bird droppings causing contact issues or electrical failures should be considered as infestation and coded to the asset directly affected.

O1.2 Asset Failures on / off Network and Across Route Boundaries

For attribution of asset failures that occur (or affect other assets) on / off network please refer to DAB Process Guide PGD14.

For attribution of asset failures that occur (or affect other assets) across Network Rail Route boundaries, the following should apply: -

- The Network Rail Manager Code should reflect the location of where the symptom / failure manifested.
- The Responsible Manager Code should reflect the Party responsible for the asset failing.
- Where the cause of failure is remote from the manifestation / symptom then the Responsible Manager does not have to be the same Route Code as the Network Rail Manager.

Trains delayed by an infrastructure failure on non-Network Rail network running lines (e.g. London

Underground infrastructure) should be coded to Delay Code TX / AX.

O1.3 Network Rail Assets Operated by non-Network Rail Staff

Where Network Rail assets (e.g. token machines, ground frames, points) that are operated by non-Network Rail staff are reported as faulty the following attribution principles apply: -

- If a fault is found then the incident should be coded to the asset reported against.
- If no fault is found then the incident should be coded to the asset under NFF principles.
- If a fault is reported but user error is subsequently demonstrated (not presumed) then Delay Code J5 can be used

- Where no fault is reported but a user error is immediately identified then delay code OK should be used (Operating on behalf of Network Rail)

Note1: Attribution cannot be made to the non-Network Rail member of staff or the company for whom they work.
Note2: The above does not include station dispatch equipment such as TRTS – see Section O10.

O2 Point Failures

O2.1 Points failures should be coded to Delay Code IB except where an exception is identified as set out in O2.2 below.

O2.2 Exceptions: -

No.	Circumstances	Delay Code	Incident Attribution
a	Point module failure	IF	Network Rail (IQ**)
b	Control relay fault in interlocking system (when affecting multiple assets)	IF	Network Rail (IQ**)
c	Fault in repeat or indication circuit back to Signal Box	IF	Network Rail (IQ**)
d	Loose rail clip causing obstruction and or damaging points	IS	Network Rail (IQ**)
e	Chair bolt broken and or obstructing switch movement	IS	Network Rail (IQ**)
f	Twisted sleeper / timber	IS	Network Rail (IQ**)
g	Track formation requires lifting and packing	IS	Network Rail (IQ**)
h	Switch creep	IS	Network Rail (IQ**)
i	Track out of gauge	IS	Network Rail (IQ**)
j	Burred rail	IR	Network Rail (IQ**)

k	Defective flat / diamond crossing (no switch rail)	IR	Network Rail (IQ**)
l	Switches failed relevant standard (053) testing	IR	Network Rail (IQ**)
m	Switch heater failure	IP	Network Rail (IQ**)
n	Snow/ice where point heaters fitted but not working or turned on	IP	Network Rail (IQ**)
o	Snow/ice where no heaters fitted	JT	Network Rail (IQ**)
p	Snow/ice where failure was not preventable by point heaters and severe weather criteria are met	X9	Network Rail (XQ**)
q	Multicore cable failure (one or more cores defective)	II	Network Rail (IQ**)
r	Possession given back late due points defect	See Section P	See Section P
s	Obstruction in points (sufficient to cause failure and observed on site), incl. sand/coal/litter/ballast/vegetation (not placed	JX	Network Rail (IQ**)

No.	Circumstances	Delay Code	Incident Attribution
	by vandals) excluding no cause found and preventable causes (e.g. dry slide chairs, contaminated grease, components out of adjustment, or obstruction by other asset components)		
t	Obstruction in points due to confirmed vandalism	XB	Network Rail (XQ**)
u	Animal obstructing points where the points operate on removal of the obstruction with no remedial work required.	X8	Network Rail (XQ**)
v	Points failure as a result of direct staff action whilst undertaking maintenance activities	JL	Network Rail (IQ**)
w	Points left in manual after possession handback or run-through during possession work	JL	Network Rail (IQ**)
x	Points failure or defect as a direct result of RHTT water jetting activity	OK	Network Rail (OQ**)

O3 Track Circuit Failures

O3.1 Track Circuit failures should be coded to Delay Code IC except where an exception is identified set out in O3.2 below

O3.2 Exceptions

No.	Circumstances	Delay Code	Incident Attribution
a	Relay: link or defect in the TPR (proving relay) or elsewhere in the indication circuit	IF	Network Rail (IQ**)
b	Cable damage caused by an On Track Machine	J8	Network Rail (IQ**)

c	Multicore cable failure (1 or more cores defective)	II	Network Rail (IQ**)
d	Multicore cable failure (more than 1 cores defective) any telecoms cable	IK	Network Rail (IQ**)
e	OHL Bond Fault	I1	Network Rail (IQ**)
f	Broken Rail	IR	Network Rail (IQ**)
g	Insulated Rail Joint ("IRJ" / "IBJ") defect - results in either a track circuit or track fault	IS	Network Rail (IQ**)
h	Broken bolts, loose rail clip or rail clip causing short circuit	IS	Network Rail (IQ**)
i	Pads & biscuit related faults	IS	Network Rail (IQ**)
j	General Swarf build up around IRJ causing a TCF (over 48 hours from any grinding activity)	IS	Network Rail (IQ**)
k	Swarf from rail grinding / post possession (occurring within 48 hours from possession completion) (Not including any resulting overruns)	JL	Network Rail (IQ**)
l	T piece missing or damaged	IS	Network Rail (IQ**)
m	Lightning affecting protected equipment	X3	Network Rail (XQ**)

n	Lightning affecting unprotected equipment	J6	Network Rail (IQ**)
o	Fault in repeat or indication circuit back to SB	IF	Network Rail (IQ**)
p	Point / signal (TFM) module failure	IF	Network Rail (IQ**)
q	Datalink problems	IF	Network Rail (IQ**)
r	Solid State Interlocking failure	IF	Network Rail (IQ**)
s	Rodent damage or insects / molluscs / bugs / bird droppings causing contact issues or electrical failures.	To Asset failure type (NOT I8/X8)	Network Rail (IQ**)
t	650v fuse blown (life expired fuse) or Transformer	IH	Network Rail (IQ**)
u	110v fuse blown (life expired fuse) or Transformer	IE	Network Rail (IQ**)
v	Fuse blown due to faulty signalling / power supply component	IE / IH / I* for component	Network Rail (IQ**)
w	External (non-Rail Industry) salting/gritting causing a Track Circuit Failure	XN	Network Rail (XQ**)
x	Track Circuit Failure due to flooding / being underwater	JK or X2 as appropriate	Network Rail (IQ** / XQ**)

y	Litter causing a Track Circuit Failure	JX	Network Rail (IQ**)
z	Rails left in the 4ft with subsequent (not immediate) Track Circuit Failure that clears on removal of rails	IS	Network Rail (IQ**)
aa	Rails left in 4ft with subsequent (not immediate) Track Circuit Failure due to crushed or damaged cables	IS	Network Rail (IQ**)
ab	Rails placed in 4ft causing immediate failure of Track Circuit	JL	Network Rail (IQ**)

O4 Axle Counter Failures

O4.1 Axle Counter failures should be coded to Delay Code J3 except where an exception is identified as set out in O4.2 below.

O4.2 Exceptions

No.	Circumstances	Delay Code	Incident Attribution
a	Axle counter requiring reset after activity or damage by maintenance	JL	Network Rail (IQ**)
b	Axle counter requiring reset after possession activity (where asset was part of the work being undertaken and left in failure mode).	I5	Network Rail (IQ**)
c	Axle counter requiring reset after possession activity (where asset was part of the work being undertaken and reset was not carried out as planned)	JL – for local reset OC – for remote reset	Network Rail (IQ** / OQ**)
d	Axle counter requiring reset after a possession where possession plan has not factored in the required reset	QB	Network Rail (QQ**)
e	Disturbance caused whilst rectifying existing fault	I/J code for original fault	Network Rail (IQ**)
f	Rail Contacts/Cable damage caused by On Track Machine	J8	Network Rail (IQ**)
g	Multicore cable failure (1 or more cores defective)	II	Network Rail (IQ**)
h	Lightning affecting Protected equipment	X3	Network Rail (XQ**)
i	Lightning affecting Unprotected equipment	J6	Network Rail (IQ**)
j	110V fuse blown, UPS or other power issue (All <175V)	IE	Network Rail (IQ**)
k	New CWR/Scrap Rail (or other metallic object) dropped in close proximity to Rail Contact	JL / IS - See TCF Section O3	Network Rail (IQ**)

O5 Level Crossing Failures

O5.1 Level Crossing failures should be coded to Delay Code ID except where an exception is set out in O5.2 below.

O5.2 Exceptions

No.	Circumstances	Delay Code	Incident Attribution
a	Vehicle striking or stuck under barrier	XD	Network Rail (XQ**)
b	Failure due to power supply (signalling equipment <175V)	IE	Network Rail (IQ**)
c	Failure due to power supply (>175V)	IH	Network Rail (IQ**)
d	Failure due to External power supply	XK	Network Rail (XQ**)
e	Multicore cable failure (1 or more cores defective)	II	Network Rail (IQ**)
f	Pedestrians crossing while barriers down/ lights flashing	XD	Network Rail (XQ**)
g	Phones left off the hook after use	XD	Network Rail (XQ**)
h	Dropped bowmac	IS	Network Rail (IQ**)
i	Member of public makes allegation of a failure of road traffic lights, yodal-alarms, barriers or other level crossing equipment, where no fault is found (not telecoms equipment))	J4	Network Rail (IQ**)
j	Reported fault (including no fault found) on crossing telephone or the CCTV telecoms cable / supply	IK	Network Rail (IQ**)
k	Obstacle Detection (e.g. LIDAR) reports object, either:- Identified (on site or via CCTV); or Where level crossing sets correctly when system “re-cycled” by signaller (where CCTV is not viewable remotely)	Appropriate to what was identified (JX,JP, XD, X8)	Network Rail (IQ** / XQ**)
l	Obstacle Detection (e.g. LIDAR) reports object - Due to heavy rain or snow falling	IW	Network Rail (IQ**)
m	Sunlight shining directly on CCTV monitors (NOT LIDAR)	XU	Network Rail (XQ**)
n	ESR / TSR implemented for crossing sighting issues per Rule Book requirement (not vegetation)	OT	Network Rail (OQ**)
o	ESR / TSR implemented for crossing sighting issues due to vegetation encroachment.	JP	Network Rail (IQ**)
p	Boom affected by high winds (over 78 mph)	XW	Network Rail (XQ**)
q	Boom affected by snow (when severe weather criteria are met)	XT	Network Rail (XQ**)

O6 Track and Rail Defects

O6.1 Likely Circumstances:-

No.	Circumstances	Delay Code	Incident Attribution
a	Broken Rail (including where causing a TCF)	IR	Network Rail (IQ**)
b	Track defects such as broken fishplates, bolts, IRJ failure, ballast and track formation, ESRs imposed, broken joints	IS	Network Rail (IQ**)
c	Poor ride quality / bump reported / suspected track defect where remedial work is carried out.	IS	Network Rail (IQ**)
d	Poor ride quality / bump reported / suspected track defect but no fault found or a defect is identified which is within maintenance tolerances	IT	Network Rail (IQ**)
e	Cautioning delays due to a proven mistaken report of a suspected track defect (post PWay site examination)	J5	Network Rail (IQ**)
f	Cautioning delays due to a report of a suspected track defect where no site visit by PWay is undertaken (i.e. cautioning is removed after only a report back from a driver or MOM doing a cab ride)	IR / IS (as reported)	Network Rail (IQ**)
g	Track is examined as a result of a reported loud noise or bang but no allegation is made directly against, and no fault found with, the track after a site visit then the incident should be treated as an (unidentified) object strike.	JX	Network Rail (IQ**)
h	Poor ride quality / bump reported on embankments (only) due to movement of embankment (e.g. clay after prolonged dry period with insufficient opportunity to tamp location)	IV	Network Rail (IQ**)
i	Poor ride quality / bump reported due to undermining of embankment by rabbit warrens, badger setts (infestation)	IV	Network Rail (IQ**)

O7 Interlocking and other signalling issues

O7.1 Likely Circumstances:-

No.	Circumstances	Delay Code	Incident Attribution
a	Any interlocking / panel / SSI / remote control system	IF	Network Rail (IQ**)
b	Power boxes – Interlocking failure	IF	Network Rail (IQ**)
c	Manual Boxes – Unable to use lever	IF	Network Rail (IQ**)
d	Trackside Functional Module (“TFM” ie Point module, or signal module) or datalink module failure	IF	Network Rail (IQ**)
e	Baseband data link problems or LDT module failure	IF	Network Rail (IQ**)

f	SSI transmission system fault within telecoms network	IK	Network Rail (IQ**)
g	Treadle failure	Coded to the Prime Cause (e.g. IC/ID)	Network Rail (IQ**)
h	650v fuse blown (life expired fuse) or Transformer	IH	Network Rail (IQ**)
i	Cold weather (Not ice or snow obstructing)	I* code (for asset affected)	Network Rail (IQ**)
j	Signal cable tension issues due to temperature variation (NOT severe weather or manual mitigation in place)	IF	Network Rail (IQ**)
k	Signal cable tension not adjusted as per agreed mitigation process by maintenance staff / Signaller for temperature variation mitigation	JL / OC	Network Rail (IQ** / OQ**)
l	Snow obscuring signal on lens or build up on hood	IW / XT	Network Rail (IQ** / XQ**)
k	Token equipment faults or failures	IL	Network Rail (IQ**)
j	Failures of communication links between telecoms or signalling equipment and where it the reason that signalling functions such as TDM/SSI, Train Describer (TD) and Block Circuits (BLO) are not operational.	IK	Network Rail (IQ**)

O8 RADIO AND COMMUNICATION FAILURES

O8.1 Radio Failures (Legacy Communications)

O8.1.1 The Code I0 (zero) should be used for delays due to failures of the RETB radio system (excluding train-based equipment).

O8.2 Radio Failures (GSM-R)

O8.2.1 For delays caused by GSM-R faults and failures please refer to Section G5

O9 OHLE and 3rd Rail Equipment

O9.1 Likely Circumstances:-

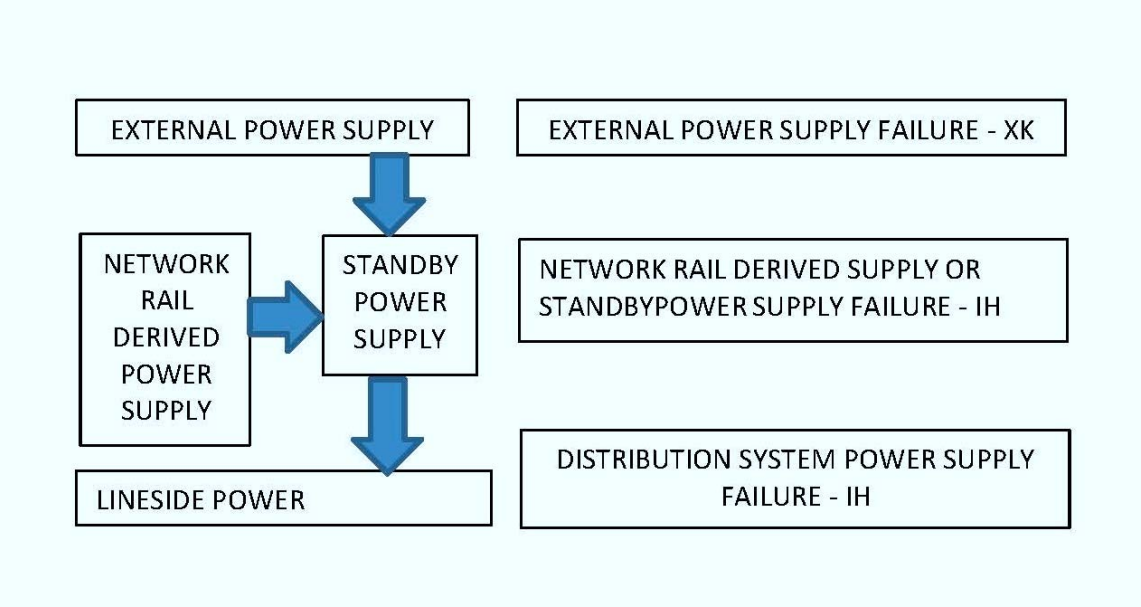
No.	Circumstances	Delay Code	Incident Attribution
a	OHLE or third rail defect / failure of equipment	I1	Network Rail (IQ**)
b	OHLE or third rail tripping occurs (not pantographs or shoes) and no known reason can be found	I2	Network Rail (IQ**)

c	Obstruction of the overhead wires or third rail should be allocated to the reason for the item being there, i.e. weather, vandalism, trespass or which have been thrown or fallen from a train.	Appropriate Cause Code per DAPR	Network Rail (IQ** / XQ**)
d	OHLE or third rail power supply failure/ reduction –problems associated with motorised and manual switches, incoming breakers, track feeder breakers and isolation irregularities	I4	Network Rail (IQ**)
e	Fire, smoke or arcing caused by conductor rail equipment (e.g. cable / jumper cable, lug, pot / insulator), OLE equipment or traction power cables	I1 / I4	Network Rail (IQ**)
f	Obstruction / tripping due to vandalism	XB	Network Rail (XQ**)
g	Obstruction / tripping due to weather including items blown onto the infrastructure (but not originating from the infrastructure)	XW	Network Rail (XQ**)
h	Obstruction / tripping due to bird strike, nest building or other animal where no damage is caused or remedial action or repair is required.	X8	Network Rail (XQ**)
i	Obstruction / tripping due to bird strike or other animal where the bird or animal is present (dead or alive) and infrastructure damage has been caused and requires remedial action to repair (including incidents where the damage subsequently resulted in a lineside fire)	I1 / I4	Network Rail (IQ**)
j	Obstruction / tripping due to vegetation : OCB trip is caused by vegetation within the 5 metre confines of the flail strip, including when attached to a structure or vegetation encroaching from off network	JP	Network Rail (IQ**)
k	Ice / icicles on OLE or third rail (regardless of weather severity)	OG	Network Rail (OQ**)
l	OHLE or 3rd rail interface Incident subject to formal inquiry	Appropriate delay code or where agreed use Holding Code D*	Operator of train concerned (M##*)

O9.2 In respect of circumstance l above, provided all possible causes have been investigated, considered and exhausted as agreed reasonable by both parties, if those investigations cannot determine the cause of the problem, the incident should be coded I1 and attributed to the Network Rail (IQ**).

O10 Cable Faults, Power Supply and Distribution Failures

O10.1 The figure below shows a schematic of Delay Codes that represent the main categories of failure for power supply and distribution equipment associated with the signalling system.



O10.1.1 If the fault arises following the loss or momentary loss (blip) of the external incoming power supply from the external supplier (usually a Distribution Network Operator such as UK Power Networks, Western Power Distribution, etc.) then: -

a) where a standby power supply (usually a diesel generator) and/or an Uninterruptable Power Supply ("UPS") is installed and fails to activate correctly or as designed to maintain the supply, then code IH should be used. (Note: generators are not designed to be instantaneous and some signal reversions and black signals are expected to occur while they start up (in the absence of a UPS); these initial delays should be coded to XK);

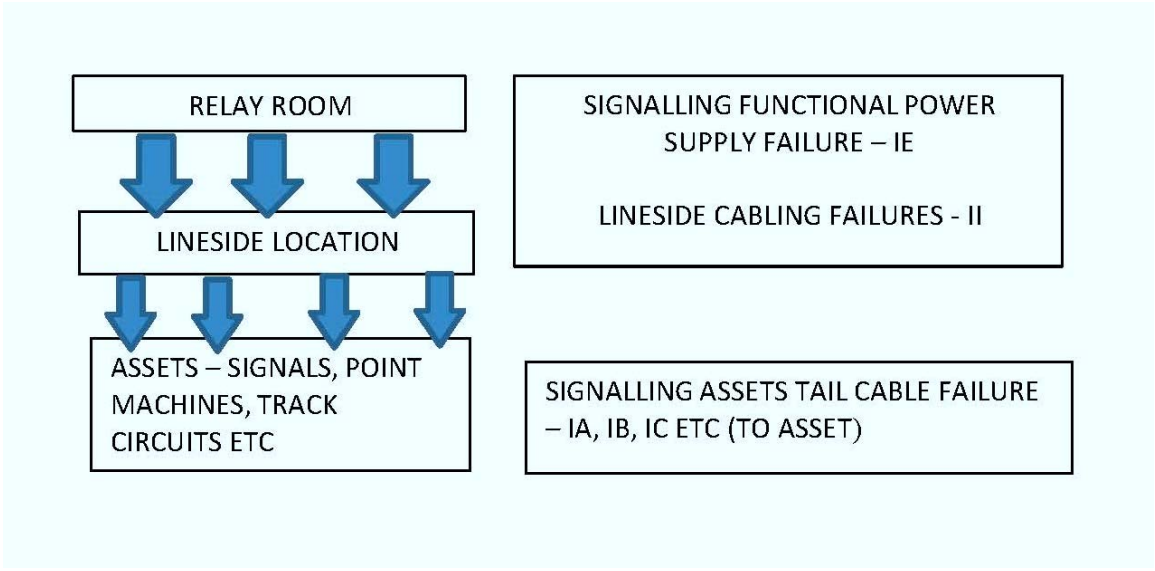
b) otherwise code XK should be used.

O10.1.2 If a fault is due to the failure of Network Rail standby supply equipment and this is as a result of damage due to the external power supply, for example by a voltage surge, then this should also be coded to XK.

O10.1.3 If the fault is due to a failure of the Network Rail derived power supply (due to a failure in the 'traction power supply' system) or standby power supply, which are located at the Principal Supply Point then the incident should be coded IH.

O10.1.4 If the fault is on the lineside power distribution system which comprises signalling power distribution cables and Functional Supply Points then the incident should also be coded IH.

O10.2 The figure below shows how to differentiate and attribute delays that are due to signalling functional power supplies, lineside signalling control cable faults, and asset tail cables.

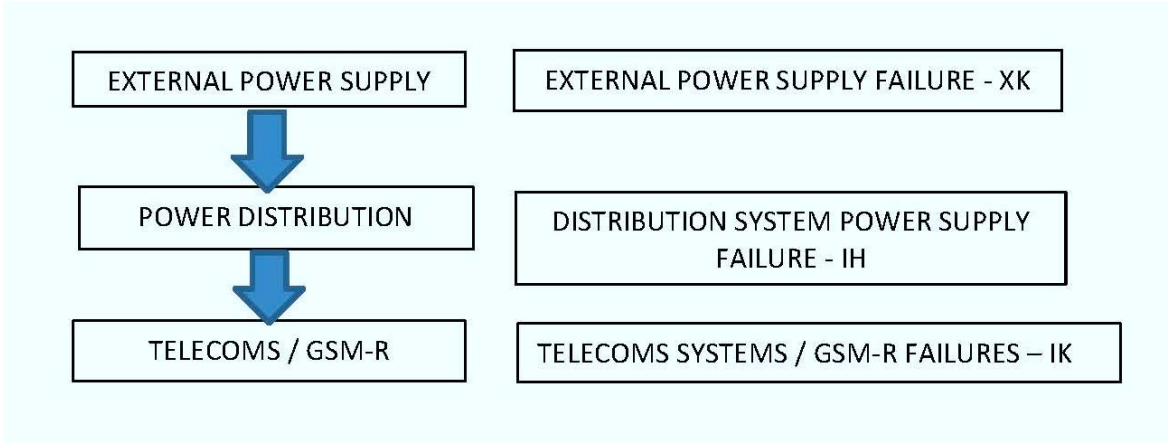


O10.2.1 If the signalling functional power supply equipment at a relay room or lineside location case causes a delay then this should be allocated to code IE.

O10.2.2 A fault with a lineside multi-core cable that is part of the signalling system or a lineside supply cable should be coded II. These are generally between relay rooms to location cases and location case to location case. (Note: Code II should not be used for signalling power distribution cable faults).

O10.2.3 If the fault lies between the lineside location case and equipment such as a signal, track circuit, or point machine, it is a tail cable failure. This should be coded according to the piece of equipment it feeds. Therefore, for example, if it is a track circuit tail cable it should be coded IC.

O10.3 The figure below shows how to differentiate and attribute delays that are due to external power supply failures to key lineside telecoms equipment rooms for cab secure radio, GSM-R and the telecommunications network.



O10.3.1 If a fault on the incoming supply to a telecoms / GSM-R site causes delays then these should be coded to XK.

O10.3.2 If the fault is on the power distribution equipment then these should be coded IH. O10.3.3

If the fault is on the actual GSM-R or telecommunications network equipment in the lineside equipment room then it should be coded J0 or IK respectively.

O11 Station Dispatch Equipment

O11.1 Likely Circumstances :-

No.	Circumstances	Delay Code	Incident Attribution
a	Network Rail train dispatch equipment failure excluding telecoms equipment (including no fault found)	J2	Network Rail (IQ**)
b	~~Demonstrated~~ Confirmed user error of train dispatch equipment	R1 / R2 as appropriate	Operator of train being dispatched (R##*)
c	Station platform DOO CCTV / monitors / mirrors (where asset is Network Rail Telecoms responsibility)	IK	Network Rail (IQ** / XQ**)
d	Failure of, or defect with, CD / RA equipment (including no fault found)	IA	Network Rail (IQ**)
e	Sunlight shining directly on and obscuring CD / RA equipment	XU	Network Rail (IQ**)

O12 Telecom Equipment Failures

O12.1 The code IK is to be used for failures of the following equipment: -

- Signal Box Telephone Concentrator System (CON)
- Signal Post Telephones (SPT)
- Level Crossing Telephones, both NR and BT lines (LCT)
- RETB Emergency Telephones
- Ground Frame Telephones
- Points Telephones
- General lineside Telephones (TEL)
  - Level Crossing – telecoms cable feed to DOO CCTV (note CCTV equipment at level crossing itself is “signalling”)
- Station platform DOO CCTV/monitors/mirrors (where NR Telecoms responsibility)

O13 ETCS and or ERTMS Equipment Failure

The code J7 is used for failures of ETCS or ERTMS equipment (excluding communications link and ETCS Balise (See Section G3).

O14 Accepted Design Limitations

O14.1 Accepted Design Limitations (ADL) is a generic title applied to asset related operational constraints that have the capacity to cause delay because equipment is unable to cater for particular circumstance, despite not being in failure mode.

a. If the ADL causes or manifests an infrastructure failure, use the appropriate I*/J* delay code for the equipment failure type.

b. If the ADL causes no failure, but still causes delay, further investigation will be required.

c. If the ADL is included in the Special Box Instructions or similar, the Signaller is able to mitigate the ADL effects and does not do so use delay code OC.

d. If the ADL is included in the Special Box Instructions or similar, the Signaller is unable to mitigate the ADL effects and does not otherwise cause delay, use the appropriate I*/J* delay code for the equipment type and attribute to the maintenance organisation.

e. If the ADL is not included in the Special Box Instructions or similar, then attribution should be considered as if the asset has failed and attribution should be to the appropriate I*/J* delay code for the equipment type.

f. If, via the RT3973 process, Capacity Planning has had the opportunity to reflect the impact of the ADL in the train plan and the train plan doesn't reflect it and no other delay cause exist, use delay code QA/QM (QQA*) and allocate to the Capacity Planning Centre.

g Any accepted design flaw, operational functionality issue, network capability limitation or operational restriction due to a new equipment / asset installation post Project Works then the Delay Code should still reflect the asset type cause using the principles above.

Staff Safety Related Incidents (Delay Code JL)

.1 Staff safety related incidents (delay code JL) should be considered when: -

- There is a confirmed staff error which causes damage and an immediate failure of an asset (e.g. cable cut by contractor)

- A failure is caused by direct action or not following standards / procedures (where asset failure is within 24hrs of that staff action or non-compliance)

.2 Staff safety related incidents (delay Code JL) should NOT be considered when: -

- A subsequent reactionary failure occurs (e.g. tracing a fault in a LOC that causes a TCF due to a loose wire).

- A fault manifests itself after 24 hours of train running from any work being carried out (which should be considered an asset failure regardless of any staff cause)

- Any process or procedural issue occurred days or weeks prior to the failure.

- Damage is caused by incorrect use of on-track machinery (use Delay Code J8)

- A late hand back of possession / line block is due to staff communication issues (use Delay Code I5 / I6 as appropriate)

- The issue relates to Warning Boards (use Delay Code IQ – see O16)
- The issue is Operations staff related (utilise Delay Code OC or OK as appropriate e.g. Crossing Keeper, MOM)

O16 Trackside Signs Including TSR/ESR Board Defective/Blown Down

O16.1 Delays resulting from missing, damaged, defective, fallen, mis-placed or obscured trackside signs should be coded IQ and attributed to Network Rail (IQ**).

O17 Off Track Assets

O17.1 For defects or issues relating to fencing, gates, walkways or lighting on the Network Rail network (not including station infrastructure) Delay Code JF should be utilised except in circumstances where vandalism or severe weather is demonstrated (see Section Q4 and Q5).

O17.2 Any infrastructure asset failure identified as originating from a location cabinet or other Network Rail equipment in the station environs should be coded to the appropriate infrastructure asset failure as set out within this Section O.

O18 Temporary and Emergency Speed Restrictions

O18.1 On publication of the Weekly Operating Notice relevant information must be made available to the Route Performance and Control organisations to enable them to ascertain the following requirements for the purpose of setting up of a TSR Network Delay Incidents within TRUST DA: -

- The correct coding of the incident
- The Responsible Manager Code
- The expected maximum time loss for each class of train

The Capacity Planning Managers' and Route Asset Managers' organisations must ensure that a suitable system is in place for such information to be available.

Conditions whereby the incident could be considered as 'Planned' can be found in table

O18.4

O18.2 Emergency Speed Restrictions should follow the same principles for information as provided in paragraph O18.1. However, in addition, any additional delays caused awaiting the erection of speed boards should also be taken into account when determining the initial delay impact and attributed accordingly. The Incident created must then be subsequently amended to incorporate the Networking (see paragraph O18.3) of expected train delay once the boards have been erected.

O18.3 For situations covered in both paragraphs O18.1. and O18.2 a Network Delay shall be initiated except where the class of trains or running lines cannot be distinguished (e.g. 4 track railway where all classes of train run on all lines to a sufficient degree that applying network delays would lead to material misallocation of delay).

Where a specific class of train will be affected and runs solely (or almost entirely) on one line then the Network Delay shall be utilised.

Network Delay shall be initiated for all delays expected of 1 minute and above.
Where Network Delay cannot be initiated, an appropriate incident should be created and where practicable and cost effective the appropriate delay should be attributed to the relevant incidents. However, the relevant time loss shall be allocated where that delay is part of an above threshold delay; required to be explained.

O18.4 Likely situations:

No.	Circumstances	Delay Code	Incident Attribution
a.	Published TSR in connection with maintenance or renewal Engineering Work covered by sufficient Engineering Allowance within the train's schedule (where allowance and restriction are in the same Engineering Section).	PA	Network Rail (PQ**)
b.	Published TSR in connection with planned maintenance or renewal Engineering Work that is **not** covered by sufficient Engineering Allowance within the train's schedule.	JA	Network Rail (IQ**)
c.	Where a TSR or ESR has been imposed due to possession work not being completed or is more restrictive than that planned. (Only where the restriction did not exist prior to the possession)	JG	Network Rail (IQ**)
d.	Where an already existing TSR or ESR remains in place due to possession work not being completed or is still more restrictive than that planned.	As appropriate to pre-existing condition not remedied (NOT JG)	Network Rail (IQ**)
e.	Published TSR due to condition of track or structure (not Engineering Work related) covered by sufficient Engineering Allowance within the train's schedule (where allowance and restriction are in the same Engineering Section) Engineering Section).	PB	Network Rail (PQ**)
f.	Published TSR due to condition of track or structure (not Engineering Work related) **not** covered by sufficient Engineering Allowance within a train's schedule.	JS / JD (as appropriate)	Network Rail (IQ**)

g.	Published TSR due to condition of track or structure (not Engineering Work related) which is covered by sufficient Engineering Allowance is within the train's schedule **but** published rectification date has passed and the restriction is no longer covered by an Engineering allowance.	JS	Network Rail (IQ**)

No.	Circumstances	Delay Code	Incident Attribution
h.	Condition of Bridge TSR not within the Engineering Access Statement (EAS)	JD	Network Rail (IQ**)
i.	Published TSR in connection with condition of earthworks covered by sufficient Engineering Allowance within the train's schedule (where allowance and restriction are in the same Engineering Section) where restriction is **not** due to inadequate drainage maintenance.	PB	Network Rail (PQ**)
j.	Published TSR in connection with condition of earthworks **not** covered by sufficient Engineering Allowance within the train's schedule.	IV	Network Rail (IQ**)
k.	Emergency Speed Restriction due to infrastructure related problem	I*/J* Code reflecting reason for restriction	As appropriate to asset responsibility
l.	Emergency Speed Restriction following a derailment or other mishap	I*/J* Code reflecting reason for restriction (not the cause of the derailment)	As appropriate to asset responsibility
m.	Temporary or Emergency speed restriction imposed as a result of rolling contact fatigue.	JS	Network Rail (IQ**)
n.	Safety ESR or TSR implemented for sighting issues for level crossings, foot crossings or signals (excluding vegetation)	OT	Network Rail (OQ**)
o.	Safety ESR or TSR implemented for sighting issues for level crossings, foot crossings or signals due to vegetation	JP	Network Rail (IQ**)

ote: The term within the Engineering Access Statement (EAS) used above should be nterpreted to mean that there is sufficient engineering allowance in the schedule that is:-

- Previously unused
- In the same Engineering Section as the restriction / delay

nd, In the case of Condition of Track/Earthworks/Structures: -

- The reason for the speed restriction is declared in the Engineering Access Statement (EAS) and the Timetable Planning Rules.

O18.5 In circumstances where a section delay due to single TSR is attributed as a part P Code nd part non- P code; for reactionary delay principles the TSR should be considered as one delay vent (i.e. not two delay incidents). Any reactionary delay due to the TSR should be allocated to he non P Code element of the TSR delay.

O19 Weather Affecting Infrastructure and Assets

Note: Please also refer to Section Q5 which covers circumstances shown in this section in more detail and also prescribes the severe weather criteria conditions.

O19.1 Rain / Flood Related Failures

O19.1.1 Any structure / earth works related failure caused by severe wet weather should ONLY be coded to an External (X*) Delay Code where the failure occurs on the day or immediately after the severe weather event (providing DAPR criteria for X* Code is met).

O19.1.2 Failures occurring days or weeks after the severe weather (including prolonged spells of rain causing saturation for example) should be coded to the relevant delay code representing the failure (IV) – Similar principles should apply for prolonged heat where earthworks dry out.

O19.1.3 Any failures due to assets being under water should be coded to the relevant JK or X2 Delay Code dependent on the circumstances of the flooding.

O19.2 Heat Related Failures

O19.2.1 Speed restrictions:

O19.2.1.1 Blanket Speed restrictions should be coded to Delay Code X4 (usually one TIN per DU Area per day), subject to meeting criteria of there being no reasonable or viable economic mitigation.

O19.2.1.2 General heat speeds should be coded to JH where the Critical Rail Temperature for the track has been reached (a new JH TIN should be created for each speed restriction per day)

O19.2.1.3 Where renewals work is being / has been undertaken then use JG.

O19.2.1.4 Any speed restriction due to a buckled rail or other track defect (Where CRT not exceeded) should be coded to IS.

O19.2.2 Equipment and Asset failures

O19.2.2.1 Asset failures (e.g points / track circuits) in hot weather should be coded to the asset concerned, noting that signalling equipment is specified to cope with normal temperature extremes (e.g. temperatures of up to 40 degrees for ambient air temperatures and up to at least 70 degrees within location cabinets.

O19.2.2.2 Failure of points and track equipment (including insulated rail joints) should therefore not be considered as heat related, even if the immediate trigger for failure is expansion due to the heat. The underlying cause is generally asset condition, set-up or adjustment related.

O19.2.2.2 Asset failures due to location cabinets overheating (but less than 70 degrees) should be coded to the asset failure unless extensive mitigation has been undertaken such as active cooling (fans etc) or specialist cooling packs. In these circumstances, if temperatures within the cabinet exceed 55 degrees, then the delay code XH should be used.

O19.2.3 Structures

O19.2.3.1 Delay Code XH should be used for buildings and structures providing DAPR criteria for severe weather is met.

O19.3 Cold Related Failures

O19.3.1 Asset failures (e.g points / track circuits) in cold weather should be coded to the asset concerned, unless conditions are agreed to be outside the stated design parameters of the asset- type concerned. Note that equipment is specified to cope with normal temperature extremes (temperatures within location cabinets down to -25 degrees are within design parameters for signalling equipment, in line with BS EN 50125-3)

O19.4 Temperature Variation

O19.4.1 Where asset failures are related to the variation in temperatures (generally overnight to daytime increases) the same principles should be applied as above in terms of design parameters. Signalling equipment in a location cabinet is expected to cope with a rate of change in temperature of approx.3 degrees/minute. This means, in practice, that temperature variation should NOT be considered as 'extreme' and should therefore not be X* Coded.

O19.5 Wind-related failures (signalling equipment, including level crossings)

O19.5.1 Signalling equipment incidents (including level crossing equipment) in high winds should be coded to the asset concerned, unless conditions are agreed to be outside the stated design parameters of the asset-type concerned. Signalling equipment (including level crossing equipment) is specified to cope with wind speeds/gusts of up to 78 mph (35 m/s),

O19.6 Ice / Snow-related failures

O19.6.1 Ice / icicles on the 3rd Rail or OLE should be coded to OG (irrespective of the weather severity) unless planned treatment is not completed, then OE should be used.

O19.6.2 Points failures due to ice / snow should be coded as follows: -

- Where no point heaters are fitted attribute to JT

- Where point heaters are fitted but not operational attribute to IP
- Where point heaters are fitted and operating but points still fail attribute to X9

Note: If the points are at the same location where other points that had operating heaters also failed then it is acceptable to recode from JT or IP to X9 (on the basis that fitment / operation would have made no difference). If those with heaters operating didn't fail, then JT / IP applies.

O19.6.3 Snow physically obscuring signals / banner repeaters / track signs (not general visibility due to falling snow) should be coded to IW or XT (severe weather criteria dependent)

Note: Where Key Route Strategy is implemented, and assets are operating outside of current design specifications, then XT should be used.

Section S Delay Codes – Proposed Alterations in Red:-

CODE	CAUSE	ABBREVIATION
IA	Signal failure (including no fault found)	SIGNAL FLR
IB	Points failure (including no fault found)	POINTS FLR
IC	Track circuit failure (including no fault found)	TC FAILURE
ID	Level crossing faults and failure incl. barrow/foot crossings and crossing treadles	LEVEL XING
IK	Telecom equipment failure (including no fault found)	TELECOMS
IL	Token equipment failure (including no fault found)	TOKEN FLR
IN	HABD/Panchex/WILD/Wheelchex fault, failure or mis-detection	HABD FAULT
IP	Points failure caused by snow or frost where heaters are fitted but found to be not turned on, not operative or defective	POINT HEAT
IQ	Trackside sign blown down, fallen over, missing, defective, mis-placed	TRACK SIGN
IT	Rough ride or bumps reported - cause not known or no fault found	TRACK NFF
IV	Cutting or embankment earthslip, rock fall or subsidence (not the result of severe weather on the day of failure)	EARTHSLIP
I2	AC/DC trip (including no fault or cause found)	AC/DC TRIP
I6	Delays as a result of line blocks / track patrols (including late handback)	LINE BLOCK
I7	Engineer's train late into, from or failed in possession	ENGNRS TRN
JD	Structures - Bridges/tunnels/buildings/retaining walls/sea defences (not bridge strikes)	STRUCTURES
JX	Miscellaneous items (including litter) causing obstructions, not the result of trespass, vandalism, weather or fallen/thrown from trains	MISC OBJCT
J2	Network Rail train dispatch equipment failure (including no fault found but excluding telecoms equipment)	TRTS FLR
J3	Axle Counter Failure	AXLE C FLR
J5	Infrastructure Asset fault reported but proven to be mistaken	MIS REPORT

Remove Delay Code XZ from Section S

Expand description and use of Delay Code XD to include emergency services going over level crossings as below: -

XD	Level Crossing Incidents including misuse and emergency services being prioritised over rail services.	XING INCDT

Expand description of Delay Code XI to cover emergency services on the line attending off Network Rail network incidents as below: -

XI	Security alert affecting the Network Rail network (including line blocks taken for emergency services attending an off Network Rail network incident).	SEC ALERT

Expand description of Delay Code XL to cover emergency services on the line attending off Network Rail network incidents as below: -

XL	Fire external to but directly affecting the Network Rail network (including line blocks taken for emergency services attending an incident not directly affecting the Network Rail network)	EXTL FIRES

Amend and expand description of Delay Code XO to include aircraft / airport related incidents as below: -

XO	External trees, building or structures encroaching or falling onto Network Rail network infrastructure (not due to weather or vandalism) also including aircraft and airport safety or operational related incidents.	EXIT OBJECT

Amend DAPR R1.3 (w) to read as below: -

w.	Network Rail network closed due to emergency on adjacent airfield/airport or other aviation related incident directly affecting the Network Rail network.	XO	Network Rail (XQ**)

Expand description of Delay Code X1 to include fog working for sighting at level crossings as below: -

X1	Visibility in semaphore signalled areas, or special working for fog and falling snow implemented by Network Rail – in all signalling areas (including special workings for level crossing visibility)	SPL WRKING

Amend G4.1(c) to read as below: -

c)	REC initiated by a non-track access contract (TAC) party from off Network Rail network (Where the unit/loco aren't registered to a Track Access Party).	J0 (zero)	Network Rail (XQ**)

Amend H3.3 (g) to read as below: -

g	GSM-R REC initiated from a non-identified unit / loco or by a non-Track Access Party (where the loco / unit is not registered to an Access Party) in an off Network Rail network location (See Section G4)	J0 (zero)	Network Rail (XQ**)