



# ATOC

Association of Train Operating Companies

**ATOC/EC/GN/003**  
**Guidance Note – Management of**  
**Rolling Stock Maintenance Records**

**Issue: 1.1**  
**May 2015**

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## **Guidance Note - Management of Rolling Stock Maintenance Records**

**Synopsis**

This Guidance Note (GN) describes an approach for the effective management of rolling stock maintenance records for Train Operating Companies (TOCs). This GN covers both storage and archiving policy of such records.

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## Part A

### Issue record

This Guidance Note will be updated when necessary by distribution of a complete replacement.

Issue	Date	Comments
One	December 2014	Original document

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### Responsibilities

Copies of this Guidance Note should be distributed by ATOC members to relevant persons within their respective organisations.

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### Explanatory note

This technical publication has been produced in consultation with rail professionals, and is to be disseminated within the railway industry.

However, ATOC is not a regulatory body and this publication is not a mandatory standard. This publication is advisory only and must be evaluated and implemented as appropriate at the sole discretion and responsibility of the user.

Every user is responsible for its own operation and carries full responsibility of ensuring safety of its own systems of work.

Whilst ATOC Guidance Notes are intended to disseminate best practice, users must evaluate this technical publication against their own requirements in a structured and systematic way. Some parts may be determined not to be appropriate at the user's discretion.

It is recommended that the evaluation and decision to adopt (or not to adopt) this technical publication is documented and reviewed from time to time.

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### Guidance Note status

This document is not intended to create legally binding obligations between train or freight operating companies, their suppliers, the DfT or the ORR.

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### **Supply**

The Controlled version of this document can be found on the RSSB website <http://www.rssb.co.uk/railway-group-standards>

Uncontrolled copies of this Guidance Note may be obtained from the ATOC Director - Major Projects, Operations & Engineering

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## Part B

### 1. Purpose

This document outlines the requirements for the:

- Effective management of rolling stock maintenance records - including archiving, retention and disposal of paper records
- Scanning paper records
- Electronic records
- Disposal of electronically scanned paper records

### 2. Scope

This document is applicable to all UK train operators and other organisations who undertake rolling stock maintenance. It is applicable to:

- The storage and archiving of original paper maintenance records
- The storage and archiving of electronically generated records
- The conversion of paper records to electronically scanned facsimiles

### 3. Background

#### 3.1 Details

Over the life of a vehicle there can be a vast amount of original paper records generated as a result of undertaking and recording:-

- Planned maintenance
- Inspection
- Test
- Fault Finding
- Defect rectification
- Overhaul
- Component exchange
- Modifications and trials

This can lead to serious storage problems of quantity, control and accessibility, together with the ongoing need to ensure that these records do not deteriorate should the method of storage be inappropriate.

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Maintenance records of work undertaken (which may include the personal or electronic signatures of the personnel undertaking the maintenance) are needed to be stored to enable:-

- A legible, traceable, identifiable and knowledge preservation history of vehicle preventative and corrective actions undertaken
- Defect analysis and determination of subsequent preventative or corrective action on vehicles and their components in the event of a further fault
- The maintenance history to be traced during an investigation following an accident or incident has occurred, and, if required, be presented as evidence in a court of law i.e. to demonstrate “all reasonable measures”
- The maintenance history to be used to assist in the determination and justification of engineering change to facilitate reliability improvements, changes to maintenance periodicities or modification component changes.
- Subsequent availability of the records to another train operator on:
  - Transfer of rolling stock
  - Change of franchise operator
  - Change of vehicle owner
  - Change of Entity in Charge of Maintenance (ECM)

### **4. Application**

#### **4.1 Relevance to standards**

The guidance note is intended to support achieving compliance with relevant:

- Statutory legislation [See section 6: References 1 & 2]
- Railway Group Standards and other rail industry standards associated with recording of safety critical activities of rolling stock maintenance (including inspection and test post accident or incident) [3, 4, 5 & 6]
- British Standards [7]
- International Standards [8]
- Certificated TOC Safety Management Systems (SMS)
- Company safety, quality and asset management systems.

The TOC's maintenance records together with their maintenance supplier's records should be legible, identifiable, traceable and retrievable.

#### **4.2 Retention of records**

In determining the method of retention and archiving of vehicle maintenance records the following should be considered:-

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- Level of security – fire protection, physical damage, unauthorised amendment, degree of confidentiality, electronic damage and corruption
- Archiving period
- Storage conditions to preserve legibility
- Continuity planning i.e. Electronic back-up remote from main site where the records are stored
- Compatibility with developing technology

### **4.3 Filing and storage of original paper records**

Original copies of paper records should be retained at the maintenance location undertaking the examination and/ or repair. Where vehicles may be maintained across a number of sites, one location should be identified where the records are kept. Third party maintenance and overhaul records should also be retained by the Train Operator. The records should be filed in a logical sequence, for example:-

- Unit/vehicle number and date order
- Date order by month with each month/ year separately identified

A process of transfer of paper records to a unit/vehicle's home maintenance location should be established from remote fuelling/service locations.

Paper maintenance records stored at a maintenance location should be filed and stored in a suitable dry location to prevent deterioration.

In order to prevent poor storage conditions, paper record deterioration, damage and risk of loss, suitably indexed maintenance records stored at a maintenance location should be considered for secure archiving off site after a suitable time period e.g. a period following a calendar year or maintenance cycle completion.

Responsibility for the management of vehicle paper records should be established and documented as part of a TOC's quality/safety/asset management system and be subject to audit.

### **4.4 Archiving of paper records**

To reduce risk of loss, damage or fire, archiving of paper records may be remote from the maintenance location at an off railway site location e.g. using a business storage specialist solution. This should be defined by the TOC's or maintenance supplier's archiving policy. Such locations should be:-

- Purpose built
- Provide security (both access and fire detection)
- Unlit to reduce the risk of fading
- A dry and clean environment
- Accessible with indexed, racked boxed storage (to enable timely retrieval, when required).

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### **4.5 Electronic records**

The production, storage and archiving of electronic copies of paper maintenance records may be considered by use of an electronic data management system to enable scanning and indexing of records. This system is advantageous as it may be used:-

- In parallel with a paper records so a backup exists should paper records be accidentally damaged or destroyed, or
- As a direct replacement for paper legacy records
- To alleviate local and off- site storage issues associated with paper records
- For rapid remote access by computer terminal alleviating the relatively slow and time consuming process of locating, viewing, copying, and re-filing of paper maintenance records.

The introduction of electronic data capture and management of maintenance records will require evaluation from a business case perspective for many existing maintenance locations that historically use paper records, including the volume of records to be entered. It is possible that the quantity and volume of paper maintenance records generated/stored/archived may not be able to justify the capital investment of data capture software/equipment and operating cost of training and periodic scanning of records, but there are significant advantages that such systems offer.

However, new depots combined with new fleets provide the opportunity for an integrated maintenance management system and direct 'shop floor' maintenance record entry from line side computer terminals thus negating/limiting the requirement for paper records.

Best practice on the management and storage of electronic data is available via a British Standard [7] which covers:-

- Scanning of paper records to digital electronic files with integrity and format to achieve quality
- Storage, retrieval and restricted access
- Security and back up to reduce the risk of data loss
- Legal verification and authenticity requirements

The design of an electronic data management system for maintenance records should be considered in conjunction with a maintenance management system or integration with existing TOC or maintenance supplier systems for efficiency, where appropriate and justifiable.

The management of the system should be defined including the organisation, the standard of competence of personnel engaged in scanning of maintenance records, indexing, filing, access and security of electronic data.

### **4.6 Record retrieval**

A vehicle maintenance record will be required to be accessible and easily retrievable for the purpose of:-

- An accident or incident investigation
- A defect investigation
- A component reliability investigation
- Lease end redelivery



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It is recommended that records are clearly indexed (with electronic search facility, where applicable) and filed to enable rapid recovery.

### **4.7 Record retention**

Current legislation and standards make reference to a requirement for record keeping but does not provide guidance on specific retention periods for rail vehicle maintenance records.

It is therefore recommended that the minimum retention period of vehicle maintenance records should be based on the following criteria:-

- The provision of evidence of conformity to the ORR, when required, that a TOC or its maintenance supplier is maintaining vehicle safety in accordance with legislation, Railway Group Standards and their SMS
- The provision of a maintenance management history for safety critical components during their fitment to a vehicle including examination, inspection, repair and test, and overhaul

The retention period for the storage of all original paper maintenance records should be for the duration of a TOC or its maintenance supplier or 3 years beyond the:-

- Permanent withdrawal of a vehicle from service or
- Removal of a wheelset from the vehicle or
- Scrapping of a wheelset, where applicable.

However, if an electronic record system is in use for paper record data capture then the paper maintenance records should be stored for a time period beyond their initial entry into the electronic records system. The time period should be specified and recorded in a quality control procedure for checking of missing images and/or images that do not meet to meet the specified quality standards required during document scanning or information storage [7].

### **4.8 Record Disposal**

Disposal of all records should be restricted and authorised to confirm that the record has no impact on train operation or vehicle owner or legal requirement. Consideration should also be given to the requirement to transfer records to another rail undertaking, when required e.g. as a result of franchise change or vehicle cascade.

A record of disposal should be maintained for traceability. Paper record disposal should be part of a TOCs or maintenance supplier's confidential paper disposal system.

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### **4.9 Third party maintenance records**

Where a third party maintains vehicles operated by a TOC, the TOC should ensure as part of the safety management system that the third party maintainer has an effective vehicle maintenance records policy which enables TOC access to maintenance records, as required, for purposes of reliability, accident and incident investigation.

### **4.10 Policy and review**

A TOC's or maintenance supplier's policy of storage, archiving and disposal of maintenance records should be documented in accordance with a safety, quality or asset management system including reference to a TOC's SMS, where applicable.

As such, the policy and procedure would be subject to periodic review and audit. This review of the system should include a technical assessment of the impact of new technology and technical migration policy.

## **5. Definitions**

DfT	Department for Transport
ORR	Office of Rail Regulation
RSSB	Railway Safety and Standards Board
SMS	Safety Management System
TOC	Train Operating Company

## **6. References**

1. The Railways and Other Guided Transport Systems (Safety) Regulations 2006
2. The Health and Safety at Work etc Act 1974
3. GM/RT2004 Rail Vehicle Maintenance
4. GM/RT2273 Post Incident and Post Accident Testing of Rail Vehicles
5. GM/RT2466 Railway Wheelsets
6. ATOC ACOP/EC/1002 Approved Code of Practice – Maintenance Systems Shared Data
7. BS 10008:2008: Evidential weight and legal admissibility of electronic information – Specification
8. PAS 55-1:2008 Asset Management: Part 1 Specification for the optimized management of physical assets