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Best Practise Guide
for the Periodic Audit and Enforcement
of Tachograph Workshops

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Best Practice Guide for the Periodic Audit and Enforcement of Tachograph Workshops

Supporting documents: Directive 2009/60/EC (Commission Recommendation of 23 January 2009 on guidelines for best enforcement practice concerning checks of recording equipment to be carried out at roadside checks and by authorised workshops)

Background

Following discussions at the MIDT Implementation and Policy Committee in Prague in June it was decided that José Gallardo of the RDW and Chris Dormand of VOSA would write a “Best Practice Guide” on what enforcement officers should look for when auditing tachograph workshops with a focus on discouraging workshops from fraudulent activity.

This guidance will also include a view on communications and support between roadside enforcement and the audit of the work performed by workshops.

This guide is based on a system where the workshops are independent and privately owned centres, rather than government owned and operated. The Netherlands have 815 centres which are audited by RDW on a frequent basis and the United Kingdom have 508 centres which are monitored by VOSA. However, the principles of the audit will be the same for state operated workshops.

Basic Principles

It was agreed that the principles of workshop audit should be focused on 3 areas:

1. Audit of the Workshop
2. Audit of the Technician
3. Data gathering for support of roadside enforcement

Each of these areas was then broken down into Essential and Desirable practices. These items are listed below:

Area	Essential practices/checks	Desirable
Workshop Audit	Visit all centres at least once within a 2 year period.	Standardised procedures for all Member State centres (e.g. operating manual, guidelines based on EC regulations, See Annex A for examples of standard operating procedures for inspection of analogue and digital tachographs)
	Suitable operating procedures	
	Up to date calibrations for all equipment	
	Check that the security requirements are being adhered to by the technician and managers	
	Check documents and records are being kept	
	Check all technicians are registered as being valid technicians.	
Technician	Valid training	Technician refresher training every 3 years



Audit		
	Quality control system identifies when technicians are checked by internal audit officer	Re-inspection of a small % of tachograph calibrations e.g. RDW check 5% of calibrations, resulting in additional checks and disciplinary procedures.
	Check validity of training and up to date.	
Data gathering	Historical record of all calibrations available to audit officer	All calibration data for analogue and digital tachographs stored electronically: Ideally Electronic database with live calibration data, accessible to audit organisation (e.g. RDW)
	Historical data gathered by audit officer and stored electronically for digital tachographs.	

Focus on the Technician

It was very clear from discussions that each of the 3 areas should have different weighting applied to them. For example, there is very little benefit in visiting a workshop and checking equipment calibrations and training certificates every month, hence the frequency of visits is suggested as being every 2 years as a minimum. However, the greatest deterrent to fraudulent activity is by focusing attention on the technician activity. Therefore, frequent visits to the workshop in order to evaluate the quality of work by the technician are far more valuable.

For this reason this paper suggests that it would be very beneficial to witness or re-inspect calibrations performed by the technicians. A system of randomly generated re-inspections will ensure that technicians remain focused on the quality of their work, as they could be inspected at any time, following their calibration. Obviously such a system gives great control for the Member State authorities but requires substantial resources.

Focus on the Data

An additional method of ensuring good quality work and identifying potential fraudulent activity is gathering calibration data from the workshops. This can be historical data containing all of the calibration information for a number of years which is checked at the time of the audit.

Alternatives to this are to gather electronic data via an internet site or encrypted e-mail. By gathering electronic data, especially in the case of digital tachographs, the authorities can quickly see the details of calibrations that have been performed, when they have been performed and decide whether they would like to re-inspect those vehicles. RDW have demonstrated that a simple internet based database gathering VU Serial No., K-factor and Vehicle Registration is sufficient. This data has to be entered by the technician when the calibration or periodic inspection is complete. RDW receive this data and can instruct the workshop to hold the vehicle, until one of their inspectors arrives to re-inspect the vehicle. This is an excellent deterrent and prevents the fitment of manipulation devices by authorised workshops.

Training of Workshop Technicians

As can be seen from Annex B, there are a number of influences on a technician's behaviour, such as the manager, the regulations, quality control procedures and essentially the training.



This last area is probably the most important area for dictating the quality of work performed by the technician.

Therefore technicians must attend an approved training course which the Member State has evaluated as being appropriate. Thus it will cover the European and National legislation, the equipment, the calibration procedures, the tachograph types and manipulation devices.

Legislative changes such as the introduction of M1N1 adaptors need to be communicated to the technicians on a regular basis. Therefore it is advised that a communication system is in place between the Member State authority and the workshops for the purpose of immediate changes.

It is essential that technicians remain up to date with equipment, tachograph and vehicle changes, thus it is extremely beneficial for refresher training to be available on a suitable periodic basis (e.g. 3 years) to ensure the technician has not developed bad practices.

Workshop Audit and Support of Roadside Enforcement

One of the purposes of auditing workshops is to support the roadside enforcement activities of the Member State authorities. Intelligence gathering and data collection are an essential function of the workshop audit. This data can be fed to the Control Officers on request or can be stored on a database for access when required. This can be used as evidence for prosecution or to support investigation of Drivers Hours offences.

It is essential that the Control Officers who are looking for offences are aware of the technical aspects of the tachograph installation and how they can affect the accuracy of the records. It is common that Member States have two types of Control Officer: one focusing on Drivers Hours activity and one focusing on the roadworthiness of the vehicle. In this situation, they must support one another to ensure that the system has not been compromised.

Whatever the working practice of the Member State authority, the purpose is to ensure that when the vehicle is inspected at the roadside, the people inspecting the vehicle have the information and the knowledge to fully evaluate all aspects of the tachograph related issues.

Conclusion

It is essential that Member State authorities consider the road safety impact of good workshop control when deciding which of the aforementioned practices to adopt. Some Member States may find great value in using a number of the “desirable” principles, as they have electronic systems or suitable numbers of trained staff to adopt them. Fundamentally, though, it must be noted that workshops will not perform the work that they are required to do unless they are audited carefully. It is the nature of the business that monetary gain comes before following rules and regulations.



Annex A: Calibration and inspection procedures

Digital Tachograph Initial Calibration Procedure Table (For guidance purposes only)

Step No	Description	
1	Check the Vehicle requirements – carry out pre-calibration checks	
2	Check the manufacturer's plaque is fitted and delivery condition of unit.	
3	Insert centre's own paper roll into VU	
4	Create 1 st technical data printout	
5	Insert workshop card into VU and enter PIN	
6	Perform a distance check to check the odometer	
7	Perform a speed check to check VU speed accuracy	
8	Check the display and operational characteristics of VU	
9	Calibrate VU using approved programmer and roller-set	
10	Check, confirm or update parameters of VU	
11	Check date and UTC time	
12	Perform a test drive or a speed for speed check	
13	Remove workshop card and produce technical 2nd data printout	
14	Create an events and faults printout, clear any active events or faults	
15	Using approved equipment seal all required parts of the system	
16	Using approved download equipment produce calibration certificate and plaque	
17	Attach plaque to vehicle (driver side door pillar)	
18	Carry out data back up if required	

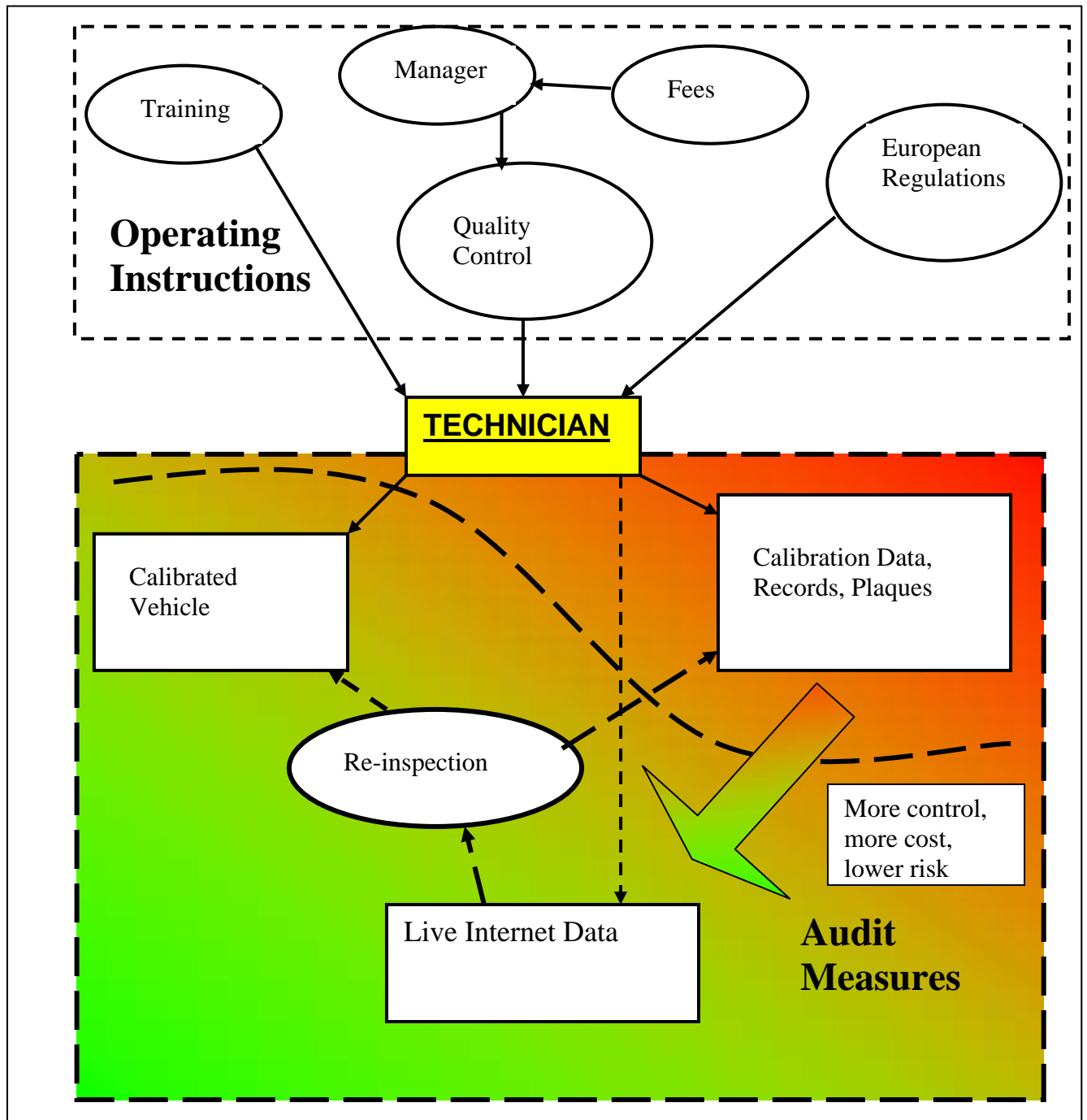


Digital Tachograph 2 yearly Calibration Procedure Table (For guidance purposes only)

Step No	Description	
1	Check the Vehicle requirements – carry out pre-calibration checks	
2	Check the manufacturers plaque is fitted, and operating condition of unit.	
3	Check the display and operational characteristics of VU, insert centre's own paper roll into VU	
4	If type of VU requires replace buffer battery, then refit VU	
5	Produce a technical print out, identify as printout No 1	
6	Insert workshop card into VU and enter PIN	
7	Remove VU and connect test cable, between VU and sensor, using programmer ensure VU and sensor pair	
8	Carry out security integrity check	
9	Remove workshop card.	
10	Produce technical print out No 2, check head and sensor serial number matches details on printout No 1	
11	Insert workshop card into VU and enter PIN, remove test cable, reconnect original cable.	
12	Using programmer ensure VU and sensor pair.	
13	Perform a distance check to check the odometer	
14	Perform a speed check to check VU speed accuracy	
15	Calibrate VU using approved programmer and roller-set or equivalent	
16	Check, confirm or update parameters of VU	
17	Check date and UTC time	
18	Perform a test drive or a speed for speed check	
19	Remove workshop card and produce 3rd technical data printout, to ensure all altered parameters changed have been accepted.	
20	Create an events and faults printout; clear all active events and faults.	
21	Remove centre paper roll and re-insert operators paper roll	
22	Using approved equipment seal all required parts of the system	
23	Using approved download equipment produce calibration certificate and plaque	



Annex B: Influences on a technician and possible areas of focus for audit



The above diagram shows that when auditing, greater control over the workshops can be gained by gathering increased levels of data and by performing re-inspections of the work performed by the technicians. However, this increased level of control may reduce risk of workshops performing poorly, but this control comes at a substantially increased cost.