SEHAUC Regional Guidance Note New Road and Street Works Act 1991 Compliance Testing Advice Note



Revision	Made by	Comment

Draft Compliance Testing Advice Note

1 Introduction

It is vital that all reinstatements are carried out in accordance with the relevant specification to ensure long-term performance of both the reinstatement and the surrounding construction.

The information and details contained in this Advice Note do not override any requirements of the New Roads and Street Works Act 1991, Health and Safety legislation, traffic management act and procedures etc.

In instances where an Undertaker carries out a coring programme and presents the results of that programme to the Street Authority, the Street Authority will <u>not</u> issue 'defective reinstatement' notifications where the results show a reinstatement to be defective, however, the utility will have three months to correct any defect. A notice must be served on the Highway authority, failure to do so may result is a Defect inspection.

2 Purpose

The purpose of this Advice Note is:

- to set out an agreed regional framework for highway authorities and statutory undertakers when they carry out coring activities, and
- to ensure the integrity, quality and consistency of results obtained, and
- to enable, valid local, regional and national performance to be monitored on the basis of a common set of guidelines, and
- to promote continuous improvement in undertaker and contractor reinstatement practices as part of a Quality Management system.

The purpose of carrying out compliance testing by either an Undertaker or a Street Authority of Undertakers' street works reinstatement is to ensure that the specification for the Reinstatement of Opening in Highways is being adhered to. Where failures are identified appropriate corrective action should be taken to rectify the situation and improve future standards through training.

3 Sample Selection & Identification Procedure

Sample selection

The selection of sites is an important process. The aim is to gain a representative sample of undertakers' reinstatements and their associated compliance with the current Specification for the Reinstatement of Openings in Highways (SROH). The sample selection is a two part process. The first part involves random selection of sites from EToN notices submitted to highway authorities. The second part involves removing unsuitable sites, e.g. verge, flags, cobbles etc. and then prioritising the remaining sites. It is from this list that sites are selected for investigation.

Initial sample size

The initial sample size for each highway authority will be based on the latest agreed annual inspection units for the sample year. The sites will be selected from an initial random sample of 15 per cent of inspection units created in the last six months (i.e. equivalent to category B inspections), in accordance with the sample selection procedure in section 2.3.4 of the Code of Practice for Inspections. This value of 15 per cent is chosen to ensure that sufficient sites are available for coring after unsuitable sites have been removed, as described above.

Based on the latest agreed inspection units and the variable workloads of statutory undertakers, a 5 per cent subsample for coring is the suggested minimum annual sample size or a minimum of 10 cores per statutory undertaker in each highway authority area, if appropriate.

Prioritisation

Care is required in finalising the actual sites for coring from the initial sample. This should include the removal of unsuitable sites and the prioritisation of remaining sites, in accordance with regional HAUC policies. The benefit of this approach is that the performance of different aspects of undertaker performance can be targeted regionally focusing, for instance, on carriageway or footway sites.

The reinstatements selected for compliance testing by a Promoting Body must be:-

- a) works notified by an Undertaker.
- b) selected at random from an Undertakers notified works.

Either the Undertaker or Highway Authority may carry out other investigatory works outside the random sample as required.

Identification

Clearly a vital element of any programme is the identification of the promoter, therefore it is advised that any pre visit and marking of sites could be a joint exercise to avoid disagreement following the results.

All cores must be clearly identified by the undertaker's and/or highway authority's reference numbers.

Reinstatements identified for coring can be identified by one or more of the following methods:

- a) by a circle painted on each reinstatement
- b) by a photograph taken showing the circle and the reinstatement in relationship to its surroundings.
- c) by a plan indicating the position of the reinstatement in the street.

Notification requirements

In order to ensure that interested parties are able to monitor the compliance testing operation, personnel undertaking the investigation are to advise both the highway authority and statutory undertakers at least one month and seven days before the commencement of the programme. In addition they should keep parties up to date on the daily testing programme. They should also provide means of contact e.g. mobile phone etc.

4 i) Coring of sites

The key elements of the compliance testing methodology for the investigation of undertakers' reinstatements are detailed below and must be carried out by a UKAS accredited laboratory, with the appropriate UKAS accreditation.

- a) Cores shall be 100mm size diameter, minimum.
- b) Cores shall be taken in the surface course, binder course and base (roadbase) layers (where present).
- c) Care shall be taken with cores adjacent to ironwork. Core shall be extracted away from the perimeter of the structure below and at least 300mm clearance from any leading edge of ironwork.
- d) Generally, cores shall be taken with at least 100mm clearance from any joint edge and located as near to the centre of the reinstatement as possible.
- e) For trench reinstatements less than 50m long, the core shall be taken mid way between the longitudinal edges of the trench, approximately half way along the trench. Where the trench reinstatement is longer than 50m, the core should be taken 25m from one end. Consideration should be given as to whether cores ought to be extracted close to the ends of a trench because it is known that compaction is more difficult here and optimum compaction may not be reached.
- f) If a selected site exhibits an obvious visual defect. This should be actioned through the routine defect regime and not investigated.
- g) Lay-bys, bar holes and reinstatements less than 250mm x 250mm shall be excluded.
- h) Cores shall be uniquely referenced, labelled and photographed. All cores shall be transported carefully and stored for a maximum of two weeks after presentation of results, unless locally agreed.
- Cores shall be limited to one per reinstatement with preference towards carriageway sites. Where an
 opening includes both carriageway and footway reinstatements preference shall be given to the
 carriageway site.
- j) The reinstatement of core holes shall be carried out in accordance with the Specification for the Reinstatement of Openings in Highways: A Code of Practice -Ancillary Activities, S11.5 Test Holes.

- k) A highway authority or undertaker may choose to investigate the unbound layers to determine compaction, material and moisture content.
- I) When unbound layers are investigated, care must be taken and refer to HSG47.
- m) Void testing may be undertaken.

ii) Trial pits

5 Analysis and interpretation of results

- a. The initial analysis and interpretation of the results, provided by the UKAS accredited supplier, must be undertaken by experienced highways authority staff or other nominated personnel. Copies of the results must be provided to the relevant statutory undertaker including photographs. Local discussions should be held between the highways authority and statutory undertakers, to agree the results of the programme because they may form the basis of local, regional and eventually national reports.
- b. A default procedure must be followed if the statutory undertaker does not contact the highway authority within 10 working days. An auditable process must be available in this instance.

Detailed analysis

Reinstatements must comply with Specification and detailed analysis of the recovered core will include:

- measurement of the thickness each layer of material, at four points or more equally spaced round the core.
 measurements should be averaged. A comparison with the specified carriageway/footway category design
 thickness and an assessment of the core with respect to tolerances as listed in the Specification for the
 Reinstatement of Openings in Highways: S6.6 (Appendix A2.5).
- a description of each layer of material in generic terms: HRA, material to BS4987 etc.
- a description of the nominal aggregate size and a comparison to that of the specified material.
- a photographic record of the core, with a suitable scale of a quality that allows layers to be identified.
- a visual assessment of compaction describing the amount of voiding as:
 - Lightly voided
 - Voided
 - Heavily voided.
 - From the results of these analyses, the core must be classified as either a 'PASS' or 'FAIL'.
 - In the case of a 'FAIL' classification, the extent of the non-compliance and the appropriate non-compliance description shall be reported as defined in Table 3.

All results must be distributed through electronic means.

Table 3 Failure classification system

Category	Non-compliance description	Extent of non compliance
	FAIL (OTA)	0-10mm
	FAIL (OTB)	11-30mm
Overall Thickness (OT)	FAIL (OTC)	31-50mm
	FAIL (OTD)	51-70mm
	FAIL (OTE)	>70mm
	FAIL (SCA)	06mm
Layer Thickness	FAIL (SCB)	-6-10mm
(Surface Course) (SC)	FAIL (SCC)	-11-15mm
from nominal values	FAIL (SCD)	-16-20mm
	FAIL (SCE)	>-20mm
	FAIL (BMA)	0-10mm
Layer Thickness	FAIL (BMB)	11-30mm
(other Bound Material)	FAIL (BMC)	31-50mm
(BM)	FAIL (BMD)	51-70mm
	FAIL (BME)	>70mm
	ADVISE (CLV)	Lightly voided
Visual assessment of compaction	ADVISE (CV)	Voided
oompassion.	ADVISE (CHV)	Heavily voided
Air voids content in	FAIL(AVA)	0-2%
excess of Table S10.1 of	FAIL (AVB)	>2%- 6%
Specification.	FAIL(AVC)	>6%

Note:

 $OT = Overall \ thickness, \ SC = Surface \ Course \ layer \ thickness, \ BM = Layer \ thickness \ of \ bound \ material, \ C = Compaction, \ AV = Air \ voids.$

FAIL (OTD) would describe a failure in terms of overall thickness (OT) in the range 51-70mm below that permitted in the Specification (after tolerances have been taken into account)

- The core information will be distributed to each Undertaker/Street Authority as appropriate.
- All Cores taken must be individually bagged and identified (with an option to inspect).
- The cores will be retained for 2 weeks (unless otherwise requested) from the notification of results.
- The following action may be taken:-
 - request from the Street Authority to the Undertaker for a joint inspection to discuss the defective reinstatement.
 - request for a meeting to discuss the overall situation and the action to be taken.
 - request from an Undertaker to a Street Authority to discuss compliance with the Specification.
 - Recovery plan and agree timescales to rectify failures.

In instances where the Street Authority has carried out coring the information should be forwarded to the Undertaker with a covering 'defective reinstatement' notification as appropriate, referring to the attached information.

6 Conflict resolution

In the event of non-agreement between the highway authority and statutory undertaker the following procedure should be adopted:

The dispute shall be considered in full by representatives of the regional HAUC. In the event that the dispute still cannot be resolved, it should be presented, in writing, to the regional HAUC committee for consideration.

The decision of the regional HAUC committee shall be binding on both parties.

7 Reporting Procedures

A full report of each core sample taken shall be retained by the originator and made available if requested.

A quarterly summary of the coring results shall be sent to the SEHAUC Secretary or nominated representative in accordance with the SEHAUC Performance Information Timescales. The Highway Authorities shall use Form C2a. Undertakers shall use form C2b

The SEHAUC Secretary or nominated representative will then provide an overall Summary for SEHAUC, using Form C1.

- A summary report of quarterly results should be presented at regional HAUC by the relevant highway authority showing the following information.
 - Name of organisation
 - Time period covered by report
 - Total number of cores
 - Footway/carriageway split
 - Overall compliance rate
 - Breakdown of reasons for failures using the failure classification system.
 - Breakdown of results by statutory undertaker
 - Areas where improvements have been made
- b) A monthly summary report of results should be distributed to the relevant highway authority/undertaker showing the following information.
 - · Name of organisation
 - Time period covered by report
 - Total number of cores
 - Footway/carriageway split
 - Overall compliance rate
 - Breakdown of reasons for failures.
 - Breakdown of results by statutory undertaker
 - Areas where improvements have been made

The following additional information will normally be provided on core results.

- a) Undertaker NRSWA reference number and site number where appropriate as per Appendix E.
- b) Location address.
- c) Date core taken.
- d) If carriageway, footway or cycle track.
- e) Existing reinstatement category
- f) Coring result.
- g) Reason for failure.
- h) Remedial action required
- i) The permanent guarantee dates for the reinstatement cored.
- j) Details of the Company/Laboratory that took the cores together with their status, e.g. NAMAS approved.

8 Financial Arrangements

In the case of reinstatements, cored by a Street Authority, that do not comply with the Specification the Street Authority will be reimbursed their costs in accordance with those permitted under the NRSWA

- Core Pass : No cost to Statutory Undertaker.
- Fail Replace Normal defect inspection regime.

9 Funding of programmes

It is clear that non compliant reinstatements have an effect on many aspects including reduced residual life of road networks, increase remedial costs, additional congestion and disruption to the highway user, all of which place an additional burden on UK PLC.

Therefore it is beneficial to all parties to understand the level of non compliance. It is therefore strongly recommended that all programme results are shared amongst the interested parties as a first step, moving towards a jointly funded programme using one UKAS accredited contractor with open agreed results.