



Briefing 11/04 January 2011

Revised Salt Spread Rates

To: All contacts in England,

For information: All contacts in Scotland, Wales and Northern Ireland

Key issues

Heavy snow fall in winter of 2010-11 continues into January.

Guidance on spread rates to reduce salt usage on local roads and improve resilience has become a high priority.

Supply of salt remains a concern for local authorities

1. Introduction

The Quarmby Review, commissioned to consider the resilience of English transport systems, produced a final report in 2010 noting a need for “research which would underpin recommendations for the adoption of lower salt spread rates [...] to improve resilience of the salt supply chain” (recommendation 23).

On December 24th 2010, the Department for Transport issued guidance titled ‘Winter Service Guidance for Local Authority Practitioners - Recommended Precautionary Treatments and Post Treatments Including Revised Salt Spread Rates’. The document is found at the link below <http://www.ukroadsliasongroup.org/pdfs/DfT%20Simplified%20Guidance%20for%20Local%20Authority%20Practitioners.pdf>

The DfT felt that with the early onset of the 2010/11 winter service season, the need for guidance on appropriate spread rates to reduce salt usage on local roads and improve resilience has become a high priority. As such they believe it helpful to provide simple spread rate guidance to local authority practitioners as a matter of urgency.

2. Guidance

Research has been undertaken by TRL on behalf of the Highways Agency (HA) and the National Winter Service Research Group (NWSRG) into the possibility of reducing spread rates. The findings were that spread rates can be reduced considerably in marginal conditions when salt that is in good condition is being spread by well maintained and/or modern spreaders that are properly calibrated. However, in more extreme conditions, spread rates may need to be increased beyond those recommended in current guidance for UK local roads, particularly for salt in less than optimum condition which is being spread with less capable or poorly calibrated spreaders.

The results of this work have been used to provide a comprehensive range of spread rates for different weather conditions and spreading capabilities for the UK road network. These have been issued through the HA, in the “Highways Agency Network Management Manual” for the trunk road and motorway network. More recently, the NWSRG “Practical Guide for Winter Service” has been developed based on this research and backed up by the practical experience of high performing service providers who have added their expertise and peer reviewed the work by TRL. This work (for HA and NWSRG) has been used to produce this new guidance. As a

result the DfT makes the point that users can have confidence that the advice provided is sound from both a theoretical and practical point of view.

Guidance available to local authority practitioners to assist them in preparing their winter service plans includes Section 13 of Well Maintained Highways which sets out the broad context and framework for the winter service, while Appendix H of that document provides details about treatment decisions. More recently, the UKLRG has provided additional guidance, published in October 2010, on its website.

The guidance supplements existing guidance and the information provided here supersedes information given in Appendix H – Sections H7 and H8 - Winter Service Issues of Well Maintained Highways including tables H2 & H3. The document replaces Sections H7 and H8 of Appendix H and also adds Section H10 for snow treatments.

The guidance includes:-

Section 2 which defines Precautionary Treatments and Post Treatments, and describes monitoring requirements.

Section 3 discusses the decision making process, including definitions of road surface wetness; definitions of traffic levels; a decision matrix to determine appropriate treatments based on weather and road surface conditions; and a decision matrix to determine spreading capability.

Section 3 replaces Section H7 of Appendix H of Well Maintained Highways and is referenced accordingly.

Section 4 provides the recommended spread rates for precautionary treatments in response to forecast frost conditions. Section 4 replaces Section H8 of Appendix H of Well Maintained Highways and is referenced accordingly.

Section 5 describes precautionary and post-treatments which are appropriate in response to forecast snow or freezing rain during snowfall, when slush is on the road (and may refreeze), for thin layers of ice (up to 1mm thick); and for thicker layers of ice or compacted snow. Section 5 adds Section H10 of Appendix H of Well Maintained Highways and is referenced accordingly.

Section 6 provides reference links to other guidance and relevant documents

3. APSE comment

APSE welcomes this new research undertaken and the guidance which accompanies it.

Clearly each council will be aware of the condition of its own spreading equipment and salt levels and be able to apply the specific elements of this guidance as appropriate bearing in mind local circumstances.

The issue of funding remains a fundamental one. New vehicles and the maintenance of them require financial resources which are in short supply across all local authorities. There is always a cost of not investing in new equipment and this guidance points that out – older equipment is recommended to spread salt at higher rates. Identifying where funds are allocated is of course a local decision but the point remains that there will be impacts of not investing in assets for providing a winter maintenance service.

The shortage of salt is a well discussed topic and many councils used more of their stocks than they would have expected prior to and during the Christmas and New Year break. There has been further snow over some parts in early January so the demand for salt will remain high and is likely to continue as such.

The Quarmby Review specifically referred to, and showed an appreciation of, the shortage in the supply of salt. However, it is to be hoped that the recommendation from the Review which called for research which would “underpin recommendations for the adoption of lower salt spread rates [...] to improve resilience of the salt supply chain” was made for appropriate reasons. APSE understands the need to ensure effective use of salt but is keen to confirm that the impetus for this research is not to simply reduce salt rates in order to save on the amount of salt used. The priorities are the safety of all transport users and the need to keep the country moving, so ensuring public services are provided and businesses continue trading, and they must remain so.

Although the weather has been severe, one impact has at least been to ensure the profile of winter maintenance services remain high for another year.

Other briefings addressing this topic are as follows and are available on the APSE website:-

10-76 Independent report on Winter Resilience

10-63 Final Report from Winter Resilience Review

10-44 Interim report from Winter Resilience Review

10-32 Evidence to Winter Maintenance Review July 2010

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