1. BACKGROUND

The Swedish Transport Agency is working to achieve good accessibility, high quality, secure and environmentally aware rail, air, sea and road transport. They have overall responsibility for drawing up regulations. Recently they commissioned VTI to review and give recommendations on friction/skid resistance measurements in Sweden (dry road condition). Up to now, no common rules for friction testing exist for all roads and paths. The present rules only applies to governmental owned and maintained road. The new challenge is to include urban roads, cycleways and walking paths as well. We have studied used methods and rules, mainly in the Nordic countries and especially looked at motivations of requirements, measured friction levels and the desired thresholds. Finally, after analysis of the review results we have recommended methods and assessed risks of the suggestions. The review have resulted in a set of recommendations such as what measurement methods to use, practical threshold triggers but also what needs to be further investigated. This paper will present the results from the review.

2. RESULTS

No obvious evidence based motivation was found for choosing the minimum acceptance limit of 0.5 measured with the Saab Friction Tester. Analysis of measured data collected during the past years was used to find a recommended level. Few accidents related to low friction are reported for summer roads in Sweden. With this in mind, it was recommended to keep the current limit. Recently some serious accidents with motorcycles occurred putting one focus on this matter. Evaluation of the reason for those accidents was found to be due to bleeding pavement on recently new paved surfaces in combination with warm weather. To catch this condition very frequently measurements has to be done, almost daily frequency. This opens the question to why measurements should be done. To detect and avoid risk sections in advance, daily inspections has to be done. To have a good knowledge of the road network friction condition, less frequently but approved monitoring is enough. In the new directive, urban roads should be included in the friction requirements. Since the recommended method for rural roads requires 70 km/h, new tests has to be done to investigate the use of a lower test speed that needs to be used in urban areas and how it will affect the threshold limit (0,5) for a risk section.

REFERENCES