

**G. French Testing Procedures and French Position on European Approach**

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For many years, there has been a regulation of the French Ministry of Transportation concerning road safety equipment. In this regulation, performance classes are specified and some barriers are accepted.

Since 1988, manufacturers, authorities, and laboratories have been translating the regulation into standards to prepare for the 1993 European common market. This work, under the auspices of AFNOR, has enabled building up a set of about 30 standards on the subject. This work is nearing completion, and the main standards are already published.

The basic French standard, number NF P 98409, is included in Appendix D. It is a performance standard concerning lateral systems that includes two main levels corresponding to the restraint of light and heavy vehicles. There are three sublevels corresponding to classes of users.

Collision tests have been carried out for these standards, approval being given after the checking of the acceptance criteria, which are as follows:

1. No jumping the barrier.
2. Adherence to impact severity criteria in terms of ASI values for vehicle deceleration and VIDI values for vehicle body deformations.
3. Adherence to conditions of the barrier terminal.
4. Adherence to other conditions concerning the disposition and condition of the barrier following the impact.

In the framework of CEN, technical committee

TC226 has been set up to deal with the standardization of road systems. This committee includes eight working groups, and the activation of WG1 on safety fences and barriers has been initiated in France. The first WG1 meeting took place in Paris in September 1990; the second one will take place in Rome on January 31 and February 1, 1991. The adjustment of European standards is a difficult operation because large present disparity exists between the various countries. An approach by successive steps must, therefore, be undertaken.

The first meeting enabled an agreement of the entire European delegation on the setting up of performance standards and an outline of terminology in this field. During the second meeting, performance classes will be determined according to the outline presented in Appendix E, probably to be further changed in accordance with the opinions of the various countries.

To determine performance classes for lateral barriers, severity criteria based on the transverse kinetic energy absorbed by the barrier will be considered, the objective being to establish four or five classes of performance. Following this will be steps for determining test conditions, according to the severity criteria, for the various vehicle types and acceptance criteria. Then, temporary lateral systems, e.g., equipment in working areas; and frontal systems, e.g., crash cushions, will be considered.

It is difficult to project deadlines; however, there appears to be desire of the various European countries to complete the standardization of equipment in this field.