U.S. Department
Of Transportation
Federal Highway
Administration

400 Seventh St., S.W.
Washington, D.C. 20590

October 26, 1994

Refer to: HNG-14/SS-49

Mr. Martin Emond
Galvacor Inc.
Sales Manager
1655 Boulevard Jean-Talon West
Quebec, PQ G2K 2J5 Canada

Dear Mr. Emond:

Thank you for your facsimile message dated October 7 to Mr. Nicholas Artimovich of my staff that transmitted a mill test report of steel used in your company's U-channel signposts. In our earlier telephone conversations with Mr. Artimovich, you said that you wanted to have your company's posts approved by the Federal highway Administration (FHWA) for use as breakaway signposts when used within the clear zone of a highway.

Through full-scale crash testing, the FHWA ahs found that U-channel sign posts made of re-rolled rail steel (or an equivalent new billet steel meeting the requirements of ASTM A-199, grade 90) perform satisfactorily by meeting our breakaway requirements. This information can be found in FHWA Technical Advisory 5040.22, a copy of which has been sent to you. The U-channel posts made of steel with greater ductility, even though of lesser strength, such as ASTM A-36, failed to fracture and caused test vehicles to slow abruptly and/or roll over after contacting the support. The specified tensile and yield strengths for the acceptable breakaway U-channel posts are 620,000 kPa (90,000 psi (minimum)) and 414,000 kPa (60,000 psi (minimum)), respectively, with maximum elongation of 5 or 7 percent, depending upon the length of the specimen tested.

The posts tested and certified on the report you sent us conform to the requirements of ASTM A-36 steel. The test samples only attained 486,000 kPa (70,440) psi tensile strength and 373,000 kPa (54,088 psi) yield strength. However, the elongation appears to be 21.9 percent, considerably above that of the acceptable U-channel post. Therefore, we must conclude that your company's U-channel signposts are not acceptable for use as breakaway supports (except as delneator posts), unless so demonstrated by full-scale crash testing. Should you wish to pursue crash testing, please refer to our memorandum, "Procedures for Determining Acceptability of Highway Safety Features", sent to you earlier. Based upon our experience, however, it is unlikely that U-channel posts of A-36 steel will meet our breakaway requirements.

We have also received your facsimile message of October 20 requesting formal acceptance of your company's Type 2, U-channel delineator supports for use on the National Highway System. As discussed above, 3 kg/m U-channel posts made of ASTM A-36 steel are acceptable, when requested by a State, for use as supports for delineators, providing the overall height, as measure from the pavement edge does not exceed 1.53 m. A copy of this letter will be sent to our regional offices informing them of this action.

You also suggested that the "Buy America" laws be modified to permit your posts to be marketed in the United States. This is not likely, as these requirements have already been addressed and sustained in the North American Free Trade Agreement (NAFTA). These requirements, including waiver provisions, are found in Title 23 of the Code of Federal Regulations, Section 635.410, which is discussed in the enclosed excerpt. The provisions were not altered by NAFTA and remain in effect.

Sincerely yours,

Seppo I. Sillan, Acting Chief
Federal-Aid and Design Division

Enclosure