

415.22

San Francisco, February 10, 1934.

[Handwritten signature]
G. C. P.
Feb 12 1934

Mr. J. H. Dyer,
San Francisco.

In connection with studies we are making, you will be interested in the attached copies of letter dated November 22nd from President Crawford, of the Pullman Company, to Vice President Adams, and the latter's reply of November 28th, commenting on a statement of General Atterbury, of the Pennsylvania, regarding light weight passenger equipment.

Will you please refer these papers to Mr. McCormick and ask him for his comments thereon, as to which I would like to be advised together with your views.

You will note Mr. Adams states in Paragraph 7 that the Philadelphia & Western is operating equipment with low center of gravity at speeds as high as 90 miles per hour under conditions that would require speed of steam equipment to be held to about 25 miles per hour. Will you please have Mr. Kirkbride select the degree of curvature on which steam trains can operate safely at 25 miles per hour on well constructed and maintained track, and then estimate how low the center of gravity on special equipment would have to be to permit safe operation of such special equipment on that curvature at 90 miles per hour.

A. D. McDONALD *[Handwritten signature]*

415-22

February 23, 1934

Mr A. T. Mercier:

Your file 445-22 of Feb 13th, regarding letter from President Crawford of the Pullman Company, to Vice President Adams, in regard to speed of light weight passenger equipment, in which some statements are made as to high speeds obtainable by these trains where steam railroad speeds are limited.

You ask that I select a degree of curvature on which steam trains can safely operate at 25 miles per hour on well constructed and maintained track, and then estimate how low the center of gravity on special equipment would have to be to permit safe operation of such special equipment on that curvature, at 90 miles per hour.

Assuming a 12 degree curve in territory where such curves are likely to occur and being elevated 4", the speed restriction for steam equipment would be 25 miles per hour, in which case the height of the center of gravity of the locomotive is assumed at $74\frac{1}{2}$ inches.

If special equipment is to operate around this same curve at speed of 90 miles per hour, the height of center of gravity would theoretically have to be 1-inch above top of rail.

As you will observe, the situation is not a practical one and it appears to me there may be some misunderstanding in regard to the statements made about the specially designed equipment.

I am desirous of ascertaining facts from the Philadelphia & Western RR. as to their method of superelevation of trains but can not find such a road listed. I am wondering if Mr. Adams meant Philadelphia & Reading. I am writing to Chief Engineer Mann of the Union Pacific asking for his tables of superelevation and relative speeds of their steam trains and high speed streamline train.

W. H. K. ...