

2 percent, on a long line, for welding steel, for steel in pumping equipment, and so forth. So you can figure for your 24-inch line 255 tons to the mile and not be consequentially out of the reckoning.

The tank car is taken as weighing 28.77 net tons of steel, on an average. Those are I. C. C. figures. Its capacity is taken as 250 barrels. That may be a little high; it may be only 240 barrels, but it is on the target. The average speed of the tank car, as actually demonstrated over the period of this emergency delivery from the Texas fields to the east coast, simply taking the number of gallons delivered, the time to deliver it, the number of barrels delivered, and so forth, works out to about 9.37 miles per hour. It is manifest that in special operations over shorter distances the speed of a tank car can be increased very substantially. So on these curves we have modified that, and we have started the speed of the tank car on short runs at 35 miles an hour—say a 50-mile run from station to station; you can do that in a train. On long runs it will boil down to something around 10 miles, as I said, which we have taken.

Mr. RANKIN. Mr. Chairman, are we going to have a meeting this afternoon?

The CHAIRMAN. So far as I am concerned, it is up to the committee.

Mr. RANKIN. I think we should take a recess until 2 o'clock. Are we going to have an executive session after we get through with this witness?

The CHAIRMAN. It is up to the committee.

Mr. GREEN. I think, if there is no objection, we can have an executive session as soon as the witness concludes his testimony.

Mr. BUCKMAN. Mr. Chairman, may I say that if it will facilitate the action of the committee I will be happy to terminate my testimony with the request that I may be allowed to add some of these figures and a further statement in the record.

The CHAIRMAN. We will be glad to have you do so.

Mr. BUCKMAN. I will be delighted to do that. My object is speed—to get something done.

Mr. BOYKIN. You have given us some wonderful information. You have made a wonderful witness.

The CHAIRMAN. Do you take into your calculations with regard to the movement of cars that one-half the time they are going back empty?

Mr. BUCKMAN. Yes, sir. We have to double the mileage on the barge, the tanker, and the car; and the pipe line only one way. The essence of it is shown in these graphs; I need not repeat it. And the pipe line becomes a competitor only at distances of less than 50 miles.

Mr. SMITH. Mr. Buchanan, I assume that your calculations are based upon figures furnished by the Navy and the Maritime Commission and other Federal agencies.

Mr. BUCKMAN. All of my figures are based upon information obtained from the public agencies; that is to say, some from the Maritime Commission; some from the Navy, some from the Army, and so forth. There are no factors in this which I have inserted myself. I have merely taken the consensus of opinion—that is not the right word; there is no consensus of opinion between many of the departments; but when it had to be sorted out, I have done the sorting. But