

For example, from perhaps the 1940's until this time, all of the durability cars that were run on the proving ground had 90-mile-per-hour tests on the test track as a part of their normal endurance schedule. In other words, a driver every 30 minutes would be driving 90 miles per hour. So we were encountering these speeds that were considerably above normal highway practice, but for the reasons given.

Mr. CONSTANDY. At the same time, though, a good portion of the mileage is at typical highway speeds?

Mr. LUNDSTROM. There are many, many tests at not only highway speeds, but at city speeds. We have stop-and-go traffic in certain areas where the cars never reach more than 30 or 35 miles per hour. Some of the cars stay on the city schedules entirely.

Mr. McDONALD. I would like to say I have had the privilege of going through your facilities there. I have seen cars traveling up to the speed of 130 miles an hour on your big track about 2 years ago when you had a display out there with some super automobile.

I would like to say this is the most modern and well-developed track and test proving ground in America, not only for the safety of the vehicle but for highway safety. I think you are being a bit modest in your description of the proving ground. It is a tremendous thing and General Motors should be commended for the work they have done in the proving ground for vehicular safety as well as driver and highway safety.

Mr. LUNDSTROM. Well, thank you. I hope the continued discussion here this morning will emphasize what you have offered.

Mr. McDONALD. I say that because, as a contractor before entering the Federal service, I was a subcontractor in many of your projects out there, so I feel I have had a hand in developing your facility.

Mr. LUNDSTROM. Thank you.

Mr. CONSTANDY. You will notice, as it became obvious to us, there is a potential for an accident when a high-speed vehicle impacts a solid object. The simple solution is to remove the obstacle. That cannot be overemphasized, can it?

(At this point, Mr. Clark assumed the chair.)

Mr. LUNDSTROM. No. That is a very obvious thing we neglect to say. Many of these obstacles are no match for a car or a car is no match for these obstacles.

A tree of even 6, 8, or 10 inches in diameter can virtually destroy a car.

Mr. CONSTANDY. And the occupants.

Mr. LUNDSTROM. And the occupants. Correct.

Mr. CONSTANDY. So in 1956, did you begin a renovation of the physical plant to enhance the roadside safety?

Mr. LUNDSTROM. Yes. We started developing the new designs, new facilities we were constructing, to higher standards; and in 1958 we started a very intensive effort to redo or modify the existing road system.

I believe the first work of this nature was done in 1958 and it was the result of studies of accidents that had involved personal injury unnecessarily.

When we looked into any case and tried to find why was this man injured, we often came back to the fact, well, his car ran through some roadside obstacle; and I remember very well a rather shallow ditch