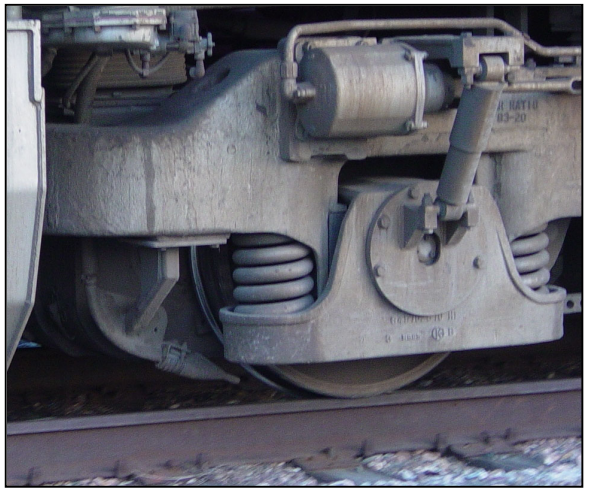
Petition of the Association of American Railroads to Delete 49 CFR 229.131

Washington, D.C.

February 22, 2006

49 CFR 229.131

- “Except for MU locomotives, each locomotive shall be equipped with operable sanders that deposit sand on each rail in front of the first power operated wheel set in the direction of movement.”



Sand for Braking

- Sand is an historic adhesion enhancer for locomotive traction (first recorded use in 1836).
- There is no documented evidence supporting sand as a braking adhesion enhancer.
- Canadian tests from 1988 show no difference in freight and passenger train stopping distances with and without sand under various weather conditions and speeds.

- Canadian Air Brake Club report from 1989 shows that sand does not perform a safety function.
- Sanders are not required by regulation in Canada, where railroads make decisions about sanders and sand (and operate locomotives accordingly) based on operational considerations.


CANADIAN AIR BRAKE CLUB

EMERGENCY STOP DISTANCE TESTS WITH AND WITHOUT SANDING

FOR PRESENTATION AT THE
81st ANNUAL MEETING
OF
THE AIR BRAKE ASSOCIATION

CHICAGO, SEPTEMBER 17 - 20, 1989

Freight & Passenger train stopping distance tests on CN near Montreal during winter and summer conditions (including snow, rain and dry weather) in 1988 ...

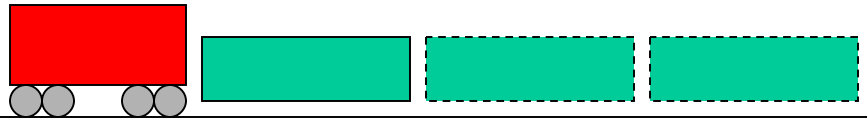
FREIGHT TRAIN

(2) GP40 loco. (1) dynamometer car + (32) loaded bulk cars

(8) sand nozzles/loco. = 16 nozzles used 50 MPH

PASSENGER TRAIN

(1) LRC loco. (1) (2) or (3) LRC coaches



(8) sand nozzles/loco. = 16 nozzles used 50-70-80-95 MPH

- "Emergency Stop Distance Tests With and Without Sanding"
  - Report by Canadian Air Brake Club, September 1989 (presented at Air Brake Association, Chicago).
  - Freight & Passenger train stopping distance tests performed by CN and VIA Rail (respectively) in 1988, *with and without locomotive sand.*
  - Test observers were from CN and VIA Rail, and additional were invited from CP, National Transportation Agency (NTA), National Research Council (NRC) and BLE.

"Because of the clear and consistent results of the tests, a number of significant conclusions can be made. The first is that, contrary to popular opinion, the presence or absence of sand does not have any significant influence on emergency stop distances for freight or passenger trains. These results are in spite of the fact that the tests were formulated to optimize the opportunity for differences to be discovered.

"Normal freight train operations using lower speeds and longer and lighter trains than in the test would reduce the train's exposure time to the sand, and hence the sand's effect. Similarly, typical passenger train operations with more than three cars cannot show any results different with respect to sanding than those tested.

"The presence of snow or rain was not a factor in either the (braking) adhesion demand or the stopping distances."