

OPINION OF THE COMMISSION

By Azcuenaga, *Commissioner*:

This case is before the Commission on appeal from an initial decision and order by Administrative Law Judge Lewis F. Parker finding that the respondents, Brake Guard Products, Inc., and its president, Ed Jones,¹ have engaged in unfair and deceptive acts and practices in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45 ("Section 5"), in connection with the sale and promotion of their aftermarket braking device. For many years, the respondents have advertised that their device provides the benefits of antilock brakes, and improves stopping distances. The respondents do not contest on appeal that they made these claims, and the record shows that they knew or should have known that the claims were false. The substantiation they have offered in their defense consists of lay testimonials and reports that are methodologically unsound or inconclusive.

Because of the potential implications of this case for motor vehicle safety, the Commission takes this case particularly seriously. For the reasons stated below, the Commission concludes that there are no competent and reliable scientific data to support the respondents' advertising claims. We affirm.²

¹ Mr. Jones' given name is Ellsworth Forest Jones, Sr., but he is more commonly known as "Ed Jones." Transcript of Testimony 2825.

² We agree with the findings and conclusions of the
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I. BACKGROUND

The respondent, Brake Guard Products, Inc. ("Brake Guard"), is a closely-held corporation, owned and controlled by the respondent Ed Jones and his family. I.D.F. 2; Tr. 2955-57.³ Its offices and principal place of business are located in Spokane, Washington. I.D.F. 1. Since at least 1980, the respondents have been involved in the manufacture, sale, and distribution of an after-market braking device under the trade names "Brake Guard Safety System," "Advanced Braking System," and "Brake Guard ABS." I.D.F. 4. The device consists of a small metal housing containing a resilient membrane. I.D.F. 4; Tr. 873. The devices

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Administrative Law Judge and adopt them as our own to the extent they are consistent with this opinion.

The respondents were represented by counsel for portions of the trial before the Administrative Law Judge. Respondent Jones represented himself pro se on appeal before the Commission, although at oral argument of the appeal, the respondent corporation was represented by its Vice President-Operations/R&D, Linden A. Burzell, Ph.D. In this instance, the Commission has tried to afford the respondents all possible assistance within the adjudicative framework of its Rules and the Administrative Procedure Act, 5 U.S.C. § 554, to ensure that they had "the right of due notice, cross-examination, presentation of evidence, objection, motion, argument, and all other rights essential to a fair hearing." 16 C.F.R. § 3.41(c) (1997).

³ References to the record are abbreviated as follows:

I.D.	Initial Decision
I.D.F.	Initial Decision Finding
R.A.B.	Respondents' Appeal Brief
Tr.	Transcript of Testimony
CX	Complaint Counsel's Exhibit
RX	Respondents' Exhibit.

are sold in sets of two, one for the front braking system and one for the rear system. I.D.F. 4; Tr. 873.

The respondents sold their braking device through a large network of dealers in the United States and in 34 countries abroad. I.D.F. 5. Consumers paid from \$283 to \$349 for purchase and installation of the Brake Guard device. Id. From 1990 to 1994, cumulative sales of the Brake Guard device exceeded \$10 million. Id.

For at least four years, the respondents made false and unsubstantiated claims for their aftermarket braking device. The respondents promoted their device as an antilock braking system, with all the performance and safety characteristics of manufacturers' original equipment (hereafter referred to as "OEM"). I.D.F. 16. The respondents advertised their device directly to consumers through print advertisements in specialty magazines such as Automotive News, Specialty Automotive Magazine, and Brake and Front End. I.D.F. 7. The respondents also promoted their product extensively through dealers, using "dealer kits" containing magazine articles, brochures, posters, testimonials, and training tapes, as well as other materials designed to help dealers promote their product to consumers. I.D.F. 8-11. Brake Guard participates in approximately 15 to 20

trade shows a year and has sponsored a booth at the giant SEMA⁴ show. I.D.F. 12.

On September 27, 1995, the Commission issued a complaint against the respondents alleging that they had violated Section 5 by making a number of false or unsubstantiated performance claims about the Brake Guard device.⁵ I.D. at 2-3. Specifically, the complaint alleges that the respondents have represented that: (1) the Brake Guard device constitutes an antilock brake system (Complaint ¶ 5); (2) the Brake Guard device prevents or reduces lockup, skidding, and loss of steering control (Complaint ¶ 7(a)); (3) the Brake Guard device provides antilock braking benefits that are as good as those provided by OEM electronic antilock braking systems (Complaint ¶ 7(f)); (4) in emergency stopping situations, the Brake Guard device stops a vehicle in a shorter distance than a vehicle that is not equipped with the device (hereafter "general stopping distance claim") (Complaint

⁴ The Specialty Equipment Manufacturing Association ("SEMA") is the association of automotive aftermarket manufacturers, distributors and outlets. Its annual show, attended by over 50,000 people, is the largest in the world.

⁵ On the same date, the Commission issued substantially similar complaints in BST Enterprises, Inc., Docket No. 9276, and Automotive Breakthrough Sciences, Inc., Docket No. 9275. On October 16, 1996, the Administrative Law Judge entered a default judgment in Docket No. 9276. On May 30, 1997, the Commission issued an order adopting the Initial Decision and the appended order as the Final Order and Opinion of the Commission. On March 3, 1997, the Administrative Law Judge issued his Initial Decision and Order in Docket No. 9275. An appeal from the Initial Decision and Order in No. 9275 is pending before the Commission.

¶ 9(a)); (5) the Brake Guard device reduces stopping distances by 20 percent or up to 30 percent (hereafter "specific stopping distance claim") (Complaint ¶ 7(e)); (6) the Brake Guard device makes a vehicle safer than a vehicle that is not equipped with Brake Guard (Complaint ¶ 9(b)); (7) the Brake Guard device complies with standards adopted by the National Highway Traffic Safety Administration ("NHTSA") for antilock brakes (Complaint ¶ 7(d)); (8) the Brake Guard device complies with performance standards set forth in the Society of Automotive Engineers' ("SAE") Wheel Slip Brake Control System Road Test Code SAE J46 (Complaint ¶ 7(c)); (9) installation of the Brake Guard device qualifies a vehicle for an insurance discount in a significant proportion of cases (Complaint ¶ 7(b)); and (10) testimonials from consumers appearing in advertisements and promotional materials reflect the typical experience of those who have used the Brake Guard device (Complaint ¶ 7(g)).

The complaint alleges that the respondents' general stopping distance claim and their comparative safety claim are unsubstantiated and that the remaining claims are both unsubstantiated and false. Complaint ¶¶ 6, 8, 11.

On May 22, 1996, the Administrative Law Judge granted complaint counsel's motion for partial summary decision on the question whether Brake Guard's trade names, logos, and promotional materials made the claims alleged in the complaint

(hereafter "Partial Summary Dec. (Ad Meaning)").⁶ I.D. at 3. Specifically, the Administrative Law Judge found that the respondents made each and every claim alleged in the complaint. Partial Summary Dec. (Ad Meaning) at 27-28. On October 16, 1996, by a second partial summary decision (hereafter "Partial Summary Dec. (Ins. Discount)"), the Administrative Law Judge concluded that the respondents' claim that installation of their device qualifies a vehicle for an insurance discount in a significant proportion of cases was both false and unsubstantiated. Partial Summary Dec. (Ins. Discount) at 9-10. A trial was held on the remaining issues. The record closed on February 14, 1997.

On May 2, 1997, the Administrative Law Judge issued his Initial Decision and Order. The Administrative Law Judge found that the respondents made all of the claims alleged in the complaint (I.D.F. 16-24), and that each of these claims was false or unsubstantiated. I.D. at 39-41.⁷ The order of the Administrative Law Judge prohibits the respondents from using the acronym "ABS" in connection with their device or a similar product, making any of the claims that were found to be false,

⁶ By order of May 28, 1996, the Administrative Law Judge clarified that in his order of May 22 granting partial summary decision, he had concluded that the respondents' advertisements and promotional materials made a claim that the Brake Guard device complies with a standard set forth by NHTSA.

⁷ The Administrative Law Judge concluded that Brake Guard's claim that its device would make a vehicle safer was unsubstantiated, and that the remaining claims were both false and unsubstantiated. I.D. at 39-41.

making any of the unsubstantiated claims without proper

⁸ The respondents concede having made the insurance discount availability claim from 1990 through 1992, but they deny having made this claim after that date. R.A.B. at 5-7. Discontinuance of a practice does not obviate the possibility of a violation or the need for an order. See, e.g., Fedders Corp. v. FTC, 529 F.2d 1398, 1403 (2d Cir.), cert. denied, 429 U.S. 818 (1976); Montgomery Ward & Co. v. FTC, 379 F.2d 666, 672 (7th Cir. 1967).

are unfair or deceptive and thereby violate Section 5. An advertisement is deceptive if it is "likely to mislead the consumer acting reasonably in the circumstances, to the consumer's detriment."⁹ The Commission long has held that "a firm's failure to possess and rely upon a reasonable basis for objective claims constitutes an unfair and deceptive act or practice in violation of section 5."¹⁰ As the Commission held in Pfizer, Inc.:

[W]hat constitutes a reasonable basis is essentially a factual issue which will be affected by the interplay of overlapping considerations such as (1) the type and specificity of the claim made -- e.g., safety, efficacy * * * ; (2) the type of product -- e.g., * * * potentially hazardous consumer product * * * ; (3) the possible consequences of a false claim -- e.g., personal injury, property damage; (4) the degree of reliance by consumers on the claims; (5) the type, and accessibility, of evidence adequate to form a reasonable basis for making the particular claims.¹¹

Also relevant is "the amount of substantiation experts in the field believe is reasonable."¹² The Commission has observed

⁹ Federal Trade Commission Policy Statement on Deception ("Deception Statement"), Appendix to Cliffdale Associates, Inc., 103 F.T.C. 110, 174-84 (1984); accord, Kraft, Inc., 114 F.T.C. 40 (1991), aff'd, 970 F.2d 311 (7th Cir. 1992), cert. denied, 507 U.S. 909 (1993); Removatron Internat'l Corp., 111 F.T.C. 206 (1988), aff'd, 884 F.2d 1489 (1st Cir. 1989).

¹⁰ FTC Policy Statement Regarding Advertising Substantiation ("Advertising Substantiation Statement"), Appendix to Thompson Medical Co., 104 F.T.C. 648, 839 (1984).

¹¹ 81 F.T.C. 23, 64 (1972); see also Advertising Substantiation Statement, 104 F.T.C. 648, 840 (1984).

¹² Advertising Substantiation Statement, 104 F.T.C. at 840.

that, "in fairness and in the expectations of consumers," the only reasonable basis for some types of claims for some types of products would be competent and reliable scientific evidence.¹³ The Commission concludes that the claims in this case, which potentially involve consumer safety, require competent and reliable scientific evidence. A false, material¹⁴ claim is inherently misleading to reasonable consumers and, therefore, is deceptive.

As discussed further below, the Commission concludes, as did the Administrative Law Judge, that Brake Guard's claim that its device would make a vehicle safer was unsubstantiated and that the other claims challenged in this case are both unsubstantiated and false. Therefore, as a matter of law, they are deceptive and violate Section 5.

III. PERFORMANCE-RELATED CLAIMS

Our own review of the record leads us to agree with the Administrative Law Judge that the respondents made false and unsubstantiated performance claims for their braking device.¹⁵

¹³ Id.; see, e.g., Removatron International Corp., 111 F.T.C. 206 (1988), aff'd, 884 F.2d 1489 (1st Cir. 1989); Firestone Tire & Rubber Co., 81 F.T.C. 398, 463 (1972), aff'd, 481 F.2d 246 (6th Cir.), cert. denied, 414 U.S. 1112 (1973).

¹⁴ To be material, a claim must be "likely to affect a consumer's choice of conduct regarding a product. * * * If inaccurate or omitted information is material, injury is likely." Deception Statement, 103 F.T.C. at 182.

¹⁵ On appeal, the Commission conducts a de novo review.
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Specifically, we find that the Brake Guard device is not an antilock brake device, does not comply with NHTSA's definition of an antilock brake, and does not reduce wheel lockup, skidding, or loss of steering control, as claimed in the respondents' advertising. I.D. at 39. Because the respondents' device does not provide antilock braking benefits at all, it follows that the claim that it provides antilock benefits that are at least equivalent to those provided by OEM ABS is also false. Id. We also agree with the finding of the Administrative Law Judge that the device does not shorten stopping distances. I.D. at 40-41. The respondents'

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16 C.F.R. § 3.54(a) ("Upon appeal from or review of an initial decision, the Commission * * * will, to the extent necessary or desirable, exercise all the powers which it could have exercised if it had made the initial decision."); The Coca Cola Bottling Co. of the Southwest, 5 Trade Reg. Rep. (CCH) ¶ 23,681 at 23405 (FTC 1994) ("Our review of this matter is de novo.").

¹⁶ SAE J46 is a road test protocol widely recognized by automotive engineers. I.D.F. 59.

Three expert witnesses with solid credentials and experience in testing and evaluating automotive braking systems testified as to the elements of an antilock system. James Hague works at NHTSA's Office of Defects Investigation and is an expert in passenger car and light truck brake systems and testing. I.D.F. 29-32; Tr. 742-1065, 1804-57. John Hinch is lead engineer in NHTSA's Office of Defects Investigation and is an expert in vehicle testing and test-data analysis. I.D.F. 33-39; 1866-2149. John Kourik, an engineer with a long history of designing and testing brake assemblies, participated in the development of the SAE J46 antilock brake test protocol. I.D.F. 25-28; Tr. 1071-1782. According to their expert testimony,¹⁷ the essential features of

¹⁷ The respondents cite no evidence, nor are we aware of any, in support of their assertion (R.A.B. at 6) that these experts have "vested interests" relative to electronic braking systems. The respondents' contention that the Administrative Law Judge "uncritically" accepted the credentials of complaint counsel's experts without regard to their "extensive connection with the government" (*id.*) is also without merit. An expert's association with, or employment by, the government by itself does not constitute adequate grounds for discrediting his or her testimony. Cf. Strickland v. Francis, 738 F.2d 1542, 1553 (11th Cir. 1984) (state employees able to offer impartial evaluations); Proctor v. Harris, 413 F.2d 383, 387-88 (D.C. Cir. 1969) (noting impartiality of government psychiatric experts). The Administrative Law Judge had the opportunity to view the demeanor of all the witnesses as well as to hear their testimony. In relying on the testimony of complaint counsel's experts, the Administrative Law Judge implicitly found that these experts were not biased or otherwise unqualified.

such systems are reflected in well-established and widely-accepted industry and governmental standards and definitions.¹⁸

In brief, an antilock braking system must automatically control the level or degree of rotational wheel slip -- that is, the proportional amount of wheel skidding relative to vehicle forward motion.¹⁹ I.D.F. 41, 45-46. To control wheel slip, the system must have components that will detect the rate of rotation of the wheel relative to vehicle speed and transmit signals regarding the rotation rate to a device that will interpret the signals and generate controlling signals to a device that will adjust brake pressure to reduce or prevent wheel slip. I.D.F. 47-50; CX 102; Tr. 801-02, 1120-21. Generally, the more brake pressure on the wheels, the more wheel slip is generated. I.D.F. 42.

¹⁸ NHTSA has promulgated regulations that set forth the components of an antilock brake system. I.D.F. 45; CX 102; Tr. 1120. The fundamentals of an antilock system are also set forth in an SAE publication, "Antilock Brake System Review--SAE J2246." CX 103. Though SAE J2246 does not expressly cover aftermarket devices such as the Brake Guard device, the respondents' expert, Robert Brinton, testified that the same fundamentals apply to the Brake Guard device. Tr. 2532-33. SAE publications are regarded as authoritative by experts in the field. I.D.F. 46; Tr. 1125, 1909.

¹⁹ Skidding occurs when a wheel is not turning at the rate at which it should be turning, given the vehicle's speed. Skidding is a type of wheel slip. Tr. 2600, 2703. Although skidding generates sideways forces, the term does not necessarily imply sideways motion. Tr. 2600. A certain degree of wheel slip is necessary for braking, but when it reaches a certain point, braking ability and control begin to fall off. I.D.F. 41-42. At 100 percent wheel slip, wheel lockup occurs. I.D.F. 43.

The respondents' braking device does not satisfy these standards. It is a simple "accumulator," meaning that in a hard stop, a membrane in the device expands to accept, or accumulate, some brake fluid, thereby reducing brake pressure on the wheels; when the brake pedal is released somewhat, brake fluid returns to the brake lines. I.D.F. 52-54; Tr. 873. The respondents' device does not have the capacity to measure wheel speed, make error determinations, or issue control signals to adjust the braking response so as to control automatically the degree of rotational wheel slip. I.D.F. 52; Tr. 876, 880-81, 2575. Indeed, the respondents' expert, Robert Brinton, conceded that the Brake Guard device is incapable of measuring the rotation rate of the wheels and of computing the difference between the speed of the braked and free-rolling wheels, functions that are essential to computing wheel slip. I.D.F. 52; Tr. 2574-75.

Besides lacking the components of an antilock system, the Brake Guard device does not provide the benefits of an antilock system. I.D.F. 106, 111-40. The 1993 NHTSA report of wheel slip testing on the Brake Guard product (CX 34)²⁰ provides competent

²⁰ The respondents seem to argue that the Administrative Law Judge should not have considered CX 35, a report of NHTSA's 1991 testing of a device similar to the Brake Guard device. R.A.B. at 16. At trial, however, the respondents asserted that the tested device performed in the same manner as their product and that the CX 35 results applied to the Brake Guard device. I.D.F. 107; Tr. 1388-89. Still, because complaint counsel stated at trial that they were "not relying on the results of the * * * testing [of the similar product] with regard to the Brake Guard
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and reliable evidence that the respondents' device does not control wheel slip, wheel lockup, or skidding, and does not give steering control benefits. The testing also demonstrates that the device is not an antilock braking system, and does not provide antilock benefits equivalent to an OEM antilock brake system.

To demonstrate control of wheel slip, competent and reliable scientific testing is necessary. Such testing must compare the performance of a vehicle equipped with the Brake Guard device to the performance of the same vehicle not equipped with the device, under controlled conditions, in driving tests where controllability during braking is at issue. I.D.F. 55; Tr. 802-812, 1127-31. The condition of the tires, brakes, and road surface, the velocity at the onset of braking, and the manner of brake application, all must be controlled. I.D.F. 56; Tr. 804-05, 1129-30. "[S]ufficient pedal force should be applied so that lockup would occur, but for the operation of the device." I.D.F. 55; Tr. 803-04, 1909-10. Proper instrumentation is required to measure variables such as velocity, brake pedal force, wheel slip, and wheel slip modulation, and the results of testing must be adequately documented to ensure proper methodology and application. I.D.F. 57-58.

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product," (Tr. 1388) we have not considered CX 35 in evaluating the ABS-related claims.

The 1993 NHTSA test, a twenty-nine page report with thirty-one pages of charts and photographs²¹, meets the testing requirements set forth above. NHTSA conducted four different road braking tests on the respondents' device: Low-friction Surface Lane Change, Changing Friction Surface, Split Friction Surface, and Low-friction Surface Curve. I.D.F. 118; CX 34-K to -L; Tr. 1137. The first three types of tests are based on SAE recommended practices. I.D.F. 122; CX 34-L. All the tests used panic stops²² with the same amount of brake pedal force, on medium to very-low-friction surfaces. I.D.F. 123; CX 34-K to -L. The vehicle was run through each test six times: three with the respondents' device installed and three without. I.D.F. 124; Tr. 1147. Each test of the respondents' device was compared to an identical test on the same vehicle, but without the device. I.D.F. 118; CX 34-G; Tr. 1138. A second vehicle, with OEM antilock brakes, was subjected to the same set of tests, to evaluate how an OEM antilock brake system would respond. Id.

²¹ Quantity assuredly does not establish quality, but there is a bare minimum of information that must be conveyed if a test is to be deemed competent and reliable. As will be seen below, the respondents' test reports are deficient in this regard.

²² Three methods of controlling brake application are to tell the driver to use: (1) a "best efforts stop," in which the driver uses whatever pedal force is necessary to bring the vehicle to a stop in the shortest possible distance; (2) a "panic stop," in which the driver is told to press on the pedal as hard as possible until the vehicle stops; or (3) a stop with a pre-determined pedal pressure, e.g., 100 pounds. I.D.F. 62; Tr. 822, 1910-11.

Before the tests, new tires and brakes were installed in the vehicle and the brakes were burnished. CX 34-J to -K; Tr. 834. Burnishing is an SAE-recommended procedure for standardizing the condition of brakes.²³ CX 40-C at ¶ 7.1; Tr. 834-35. Instruments were attached to the vehicles to measure and provide data on vehicle speed, applied brake pedal force, deceleration, stopping distance, and elapsed time of maneuver. I.D.F. 125; CX 34-I. The measuring instrumentation was appropriate and comprehensive. I.D.F. 125; Tr. 1147-48.

The NHTSA testing revealed that the Brake Guard device was not an ABS system because it does not detect wheel rotation or adjust brake force in response to wheel rotation. Tr. 880-81; 1149-51. The testing revealed that the respondents' device did not control wheel slip. I.D.F. 126-31; CX 34-Z-3 to -5, -7, -14 to -30.²⁴ The device therefore does not control lockup or skidding. See n.19, supra. The test driver lost control of the car during braking when the respondents' device was employed. The test did not establish any steering control benefits. CX 34-B. The competent and reliable NHTSA testing showed that the

²³ SAE J46 describes the burnishing procedure for passenger cars: "[B]urnish brakes by making at least 200 stops from 40 mph (64 km/h) at 12 ft/s² (3.7 m/s²). Stop interval shall be as required to achieve 250^B F (121^B C) initial brake temperature or a maximum of 1 mile (1.6 km)." CX 40-C at ¶ 7.1.1.

²⁴ In I.D.F. 126, the ALJ failed to note the page of CX 34 on which the test data for the Brake Guard device appear. Because CX 34 contains testing on devices other than the Brake Guard device, Finding 126 should refer to CX 34-Z-14 to -15.

respondents' device does not meet the definition of ABS and does not provide ABS benefits.

There is no merit to the respondents' contention (R.A.B. at 17) that the NHTSA tests are not methodologically sound. Specifically, the fact that the tests of the Brake Guard device and OEM ABS were conducted on two different vehicles did not bias the outcome. The record shows that the only difference between the two vehicles (the OEM vehicle had rear disc brakes and the Brake Guard device vehicle had rear drum brakes) would not have affected the results. Tr. 833, 871. Indeed, the two vehicles performed in the same manner when the Brake Guard and OEM devices were disengaged. I.D.F. 121, 126-29. In addition, the vehicle with the Brake Guard device was tested with the device both engaged and disengaged, which provided a built-in control to test wheel lockup, skidding, or steering control benefits. I.D.F. 132; Tr. 881-82. Even without the comparison to the vehicle with the OEM ABS, the tests showed that the Brake Guard device had no effect on wheel slip.

The respondents' objection (R.A.B. at 17) to NHTSA's use of burnishing is also groundless. According to the respondents, NHTSA biased the results against Brake Guard when it burnished the brakes, thus eliminating any inconsistencies in the braking surfaces. R.A.B. at 17. Even the respondents' expert, Mr. Brinton, acknowledged that burnishing is simply a method of standardizing brake surfaces so that the tester can be sure that

variations in the brake surfaces of the vehicles being tested are not responsible for differences in test data. Tr. 2526. There is no evidence in the record that burnishing has any impact on wheel slip. I.D.F. 41. As for the respondents' contention that the brake pressures applied in NHTSA's tests were "far in excess of those normally characteristic of panic stops" (R.A.B. at 17), the 112- and 200-pound brake pressures NHTSA used are within the levels permitted by the Federal Motor Vehicle Safety Standards, and were chosen with those standards in mind. CX 34-L; Tr. 838-40; 49 C.F.R. § 571.105 S4, S5.1.6.

In contrast to NHTSA's carefully controlled tests, the tests submitted by the respondents to substantiate their ABS-related claims were marred by numerous testing errors, including insufficient controls and bias in the presentation of data. I.D. at 40-41; I.D.F. 60-100. The Administrative Law Judge reviewed each of the respondents' tests in detail and correctly found that not one comes close to providing reliable data to support the respondents' claims. The deficiencies in the respondents' tests are even more conspicuous in light of the high level of substantiation the Commission requires when there are safety issues and given that the truth or falsity of the claims would be difficult for consumers to evaluate by themselves. See Thompson Medical Co., 104 F.T.C. 648, 822 (1984), aff'd, 791 F.2d 189 (D.C. Cir. 1986), cert. denied, 479 U.S. 1086 (1987).

Only four of the respondents' test reports even purport to show that the Brake Guard device controls wheel slip or provides steering control. The first, a one page report and two-page letter prepared by mechanical engineering consultants Gerard & Associates, characterizes the reported results as "preliminary." RX 232-A; I.D.F. 73. Even the respondents do not rely on this test to substantiate their ABS-related claims, because, they explain, it was not designed to evaluate wheel slip control. R.A.B. at 11.

The second document, a one-page, eleven-line letter and a two page attachment from a company in Turkey purporting to find reduced lockup "at the beginning" and no skidding (RX 230), also fails to provide competent and reliable evidence in support of the respondents' claims. I.D.F. 82. The one page letter describing the test "findings" contains no information about the manner in which the testing was conducted, the qualifications of the testing organization, or a description of the vehicle tested. RX 230. The accompanying "test report," written in a foreign language (presumably Turkish),²⁵ contains only thirty lines of text, including the text of the cover page. RX 230-A to -B. Mr. Jones was not able to translate the document and did not have any information concerning the testing or the data used to generate the stated conclusions. I.D.F. 81; Tr. 3007-08. The document

²⁵ No translation was submitted for the record.

contains no evidence concerning the reliability of the testing and provides nothing on which the respondents legitimately can rely.

A third test report, describing tests performed by Cunningham Engineering in 1992 (RX 206-A to -M), states that with the respondents' device installed, the test driver experienced "non-skid stops," but without the device he experienced "skidding stops." RX 206-C. The report does not provide competent substantiation, however, because the underlying tests are inherently unreliable. Specifically, the driver used two different stopping techniques: "controlled" stops for testing the respondents' device, and "panic stops" for testing without the device. RX 206-E to -G; Tr. 1937. At trial, John Hinch, lead engineer in NHTSA's Office of Defects Investigation, explained that "[t]he basic difference between those two is * * * how hard you press on the brake pedal. * * * And that would generate a different type of stopping scenario and would not be proper [testing] procedure." Tr. 1938. See also I.D.F. 55, 79. The test report also failed to describe how the skidding was measured. I.D.F. 57-58.

The fourth test, an English language description of a report prepared by a technical institute in Slovenia (RX 2), similarly fails to provide competent and reliable evidence that the respondents' device improves a vehicle's braking abilities. Tr. 1983. The report states that there was no steering control loss

with the Brake Guard device installed, but no comparison test was conducted with the device disengaged, so there is no evidence that there would have been loss of steering control without the device. I.D.F. 85; Tr. 1984, 1195-97, 1201. There was no indication of the brake pedal force that was applied during the test, which means that low pedal force, rather than the respondents' device, could have been responsible for allowing the driver to maintain steering control. Id. Because the test procedures used were seriously deficient, the reported steering control benefits are not reliable. Finally, respondent Jones testified that he did not rely on this test. Tr. 3012-13.

We conclude that the respondents' device does not satisfy NHTSA standards and that NHTSA's testing was competent and reliable and demonstrated that the respondents' device did not reduce wheel slip, lockup, skidding or loss of steering control. I.D. at 39; I.D.F. 106. The NHTSA testing and expert testimony also demonstrated that the respondents' device is not an ABS system because it does not detect wheel slip and adjust brake pressure accordingly. I.D. at 39; Tr. 880-81, 1149-51. We also conclude that the respondents did not have reliable tests or other evidence demonstrating that their device reduces wheel slip or provides steering control benefits. I.D. at 39. These claims are false and unsubstantiated. Also false and unsubstantiated is the claim that the device meets SAE performance standards. SAE J46 is a testing protocol and does not contain any performance

standards or goals, so a claim that the respondents' device meets SAE J46 standards is false and unsubstantiated. I.D. at 40; Tr. 1136-37, 2582. Finally, because the claim that the device provides antilock benefits is false and unsubstantiated, the claim that it provides antilock benefits that are at least equivalent to those provided by OEM ABS is also false and unsubstantiated. I.D. at 39.

B. Stopping Distance and Safety Claims

A valid stopping distance test "requires competent and reliable testing that compares the performance of a vehicle with the device engaged to the performance of the same vehicle with the device disengaged." I.D.F. 60; Tr. 815-16. As the Administrative Law Judge found, "even minor variations in speed can result in significant differences in the distance traveled," so the speed at braking must be precisely measured. I.D.F. 60; Tr. 816. One technique approved by the SAE for measuring speed and stopping distance is the use of a "fifth wheel data acquisition system."²⁶ I.D.F. 60; Tr. 817-19, 2561-62. The tires, brakes, road surfaces, and brake application must be controlled, and tests with and without the device must be conducted at a point sufficiently close in time to eliminate or reduce impact from an independent variable. I.D.F. 61-62. As always, proper documentation of the testing is required. I.D.F. 63. Certain mathematical equations can be used to verify the accuracy of stopping distance data. I.D.F. 65; Tr. 1640-42, 1955-58. Competent and reliable testing, with appropriate controls, is also necessary to evaluate vehicle safety. I.D.F. 66; Tr. 1287, 2531.

²⁶ A "fifth wheel data acquisition system" is an independent measuring device. It consists of a wheel, equipped with sensors, that is mounted on the rear of the testing vehicle. The sensors measure the speed of the vehicle and the distance from any point in time to any other point in time. Tr. 810-11.

We agree with the Administrative Law Judge that NHTSA's testing showed conclusively that the respondents' stopping distance and safety claims were false. I.D. at 40-41. NHTSA's stopping distance tests of 1991 (CX 36) and 1993 (CX 33) were competent, clear, and reliable. I.D.F. 116, 135-37; Tr. 890-92, 1166-70. The tests showed that the respondents' device did not shorten stopping distances, either generally or by 20 to 30 percent. CX 33-B, 36-B; I.D.F. 114, 116, 138.²⁷

In contrast, the respondents' stopping distance tests are seriously flawed.²⁸ The first test on which the respondents rely is the so-called ambulance test, reflected in an anonymous one-page report. RX 3. The report provides no information on the test's methodology, the controls employed, or how the vehicles' speeds and braking distances were measured. Id.; Tr. 1954-55. Mr. Hinch, lead engineer in NHTSA's Office of Defects Investigation, calculated that based on the test data from the report, the friction of a wet surface would be higher than that

²⁷ The 1991 testing of the respondents' device actually showed that "[s]topping distances were somewhat increased by the device." CX 36-B (emphasis added).

²⁸ The respondents submitted the following evidence: (1) an anonymous, one-page report of testing on two ambulances from 1987 (RX 3); (2) the Gerard & Associates tests, discussed above; (3) the 1992 Cunningham tests, discussed above; (4) the Turkey tests, discussed above; (5) the Slovenia tests, discussed above; (6) a 1994 report from Cunningham (RX 206-N to -T); (7) a 1995 report of testing conducted in Australia (RX 8); and (8) tests conducted by the respondents' expert, Mr. Brinton, after the Commission issued the complaint (RX 216).

of a dry surface, "which * * * does not make * * * physical sense." Tr. 1958; I.D.F. 72. The Administrative Law Judge properly concluded that the data reported in RX 3 are not reliable. I.D.F. 71.

The Gerard test report stated that the results were "preliminary." RX 232. There were insufficient controls of vehicle speed, which was reported as "25 MPH \pm 2 MPH," and stopping distances were not corrected to account for variations in speed. I.D.F. 75. There is no indication in the report that the type of brake application was controlled or that appropriate measuring equipment was used. Id.; Tr. 2000-03. Testimony established that a tape measure was used to measure stopping distances. I.D.F. 75; Tr. 2982. This is an inadequate way to measure stopping distance because neither the point at which the brakes are applied nor the vehicle's speed at braking can be determined precisely with a tape measure. Tr. 824, 1164-65, 1918-19, 2530. Since the speed and point of braking are indeterminate, the stopping distance is indeterminate. Tr. 814-19, 1160-66, 1916-18, 2526. For example, as the Administrative Law Judge noted, if the brakes are applied just one-tenth of a second too late in a stopping distance test of a vehicle traveling 60 miles per hour, the stopping distance will be 8.8 feet longer. I.D.F. 64.

The respondents' reliance on the 1992 testing performed by Cunningham Engineering is likewise misplaced. I.D.F. 79-80. The

reported stopping distances were inherently unreliable because of numerous deficiencies in the testing protocol, including the use of a tape measure to measure stopping distances. Tr. 1208-09, 1935-37. As discussed above in Part III.A, the braking technique used with the Brake Guard device employed differed from that used without the Brake Guard device. I.D.F. 79; RX 206-E to -G. Also, there is no indication how the tester measured the speed at which the brakes were applied. I.D.F. 79.

Most revealing, however, are the inconsistencies between the test data and the test reports, which show a strong bias in respondents' favor. For example, the report on tests conducted on a motor home equipped with the respondents' device failed to include the longest stopping distance in computing the average stopping distance. I.D.F. 80(a); compare RX 206-E with 206-J. Conversely, the report on tests conducted on a pickup truck without the device failed to include the shortest stopping distance in computing the average stopping distance. I.D.F. 80(b); compare RX 206-F with 206-K. The pickup truck report failed to include the results of five test runs with the device installed that resulted in longer stopping distances. I.D.F. 80(b); RX 206-K to -L. The pickup truck report also did not reveal that the son of respondent Jones was the driver on three out of the five stops using the respondents' device. I.D.F. 80(b); RX 206-L; Tr. 3000. As a final example of the inconsistencies, the report on tests conducted on a passenger car

equipped with the respondents' device failed to include two longer stops in computing the average stopping distance.

I.D.F. 80(c); compare RX 206-G with 206-M.

The deficiencies in the Turkey test are set forth above, in Part III.A and make the stopping distance data unreliable.

I.D.F. 83; Tr. 1228-29. We agree with the Administrative Law Judge that the Slovenia test also cannot provide substantiation for the respondents' stopping distance claims. I.D.F. 86-87. The report does not identify the instrumentation used or the control procedures. RX 2; Tr. 1201-03, 1979. In any event, as noted earlier, Mr. Jones testified that he did not rely on the Slovenia test as substantiation. Tr. 3012-13.

The Administrative Law Judge properly rejected the 1994 Cunningham testing as substantiation for the respondents' claims. I.D.F. 89-93. First, stopping distance was measured by use of a measuring tape (Tr. 1209-10), an unreliable technique. I.D.F. 91. Neither was a reliable method used to control for speed.²⁹ Calculations by complaint counsel's expert, John Kourik, showed data discrepancies that were not explained by any evidence in the record. Tr. 1636-41. Finally, the Administrative Law Judge properly noted concerns about the

²⁹ The vehicles' cruise controls were used to control speed, but cruise controls do not precisely control speed. Tr. 1210, 1932-33. In addition, the cruise control on one of the vehicles broke during the testing, leaving open how speed was measured. Tr. 1210-11, 1932-33.

impartiality of the testing because only selected data were provided and unfavorable information had been omitted from the reports of the 1992 Cunningham testing. See discussion at pp. 28-29, supra; I.D.F. 93; I.D.F. 80.

As for the Administrative Law Judge's refusal to credit the Australia test, the respondents are incorrect in asserting (R.A.B. at 14) that the Administrative Law Judge failed to understand that the test was intended to substantiate stopping distance claims. The Administrative Law Judge specifically noted that the report did not indicate "what criteria * * * were used to measure the 'improved' [braking] performance," did not contain the underlying stopping distance data, and did not reflect testing under SAE J46 road conditions. I.D.F. 94. The testing organization stated that it was comparing the performance of a vehicle fitted with the Brake Guard device to that of a "standard vehicle" which had been tested "previously." RX 8. The Administrative Law Judge properly noted that "it is not clear when the prior testing was done, and there is no indication of an attempt to compare or control the test conditions (such as the conditions of the road surface)." I.D.F. 96. Although the Administrative Law Judge also noted the absence of wheel slip data from the test report, see I.D.F. 95, he clearly and correctly premised his rejection of the results on flaws that cast doubt on the reported stopping distance results.

Finally, there is no merit to the respondents' claim (R.A.B. at 14-15) that the Administrative Law Judge improperly failed to credit post-complaint test data generated by Mr. Brinton.³⁰ RX 216. Those tests had several testing deficiencies that may have biased the results in favor of Brake Guard: the length and weight of the tested vehicle, a motor home hauling a pickup truck, far exceeds the length and weight of the average passenger car (I.D.F. 97; RX 216; Tr. 2541); the respondent's son, a former Brake Guard employee and current distributor of the Brake Guard device, was the driver during the tests (I.D.F. 97; Tr. 2571); no two tests were conducted at the same speeds, and the report does not correct the stopping distances to a particular speed

³⁰ Similarly, the Administrative Law Judge did not err in refusing to credit Mr. Brinton's testimony. Although on direct examination Mr. Brinton testified that the Brake Guard device controls rotational wheel slip and complies with the generally accepted industry definition of an antilock braking system, he testified to the contrary on cross-examination. Compare Tr. 2505-07 with Tr. 2574.

³¹ In any event, because the respondents did not actually use or rely on these tests at the time they made the disputed claims for their braking device, they may not rely on them in
(continued...)

Additional testing of which Brake Guard was aware also shows that Brake Guard has no substantiation for its stopping distance claims. The Administrative Law Judge properly noted that a report prepared by Southwest Research Institute ("SWRI"), CX 56, an independent test company hired by the respondents, "could not state that the [observed decrease in stopping distance was] due to the Brake Guard device, or simply to the position of each stop in the test sequence." I.D.F. 146. See also CX 56-R; Tr. 2188-89. Even assuming that the Brake Guard device had the purported effect, SWRI did not determine whether the observed differences in stopping distances were statistically significant. I.D.F. 146; CX 56-H to -R; Tr. 2192-93.

The Administrative Law Judge correctly concluded that "competent and reliable testing performed by [NHTSA] on two separate occasions on the Brake Guard device * * * consistently demonstrated that no stopping distance enhancement results from installation of the Brake Guard device." I.D. at 40. The

³¹(...continued)
defending against charges that the claims were unsubstantiated. See, e. g., Porter & Dietsch, Inc. v. FTC, 605 F.2d 294, 302 n.6 (7th Cir. 1979); Pfizer, Inc., 81 F.T.C. 23, 67 (1972).

are false and unsubstantiated. Since the respondents can point to no competent and reliable testing that shows that their device improves either steering control (see Part III.A, supra) or stopping distances, the claim that their device makes vehicles safer is unsubstantiated. See I.D. at 41.

IV. TESTIMONIAL TYPICALITY CLAIM

We agree with the Administrative Law Judge that the testimonials included in the respondents' advertising made unsubstantiated claims that reduced stopping distances and wheel lockup were typically experienced by consumers. For substantiation, the respondents appear to rely on 81 or 82 submitted testimonials as well as testimony by Mr. Jones that he and his company received "hundreds and hundreds" of letters from satisfied customers.³² Tr. 2941-42. There is no evidence, however, that these testimonials represent a scientific sample of Brake Guard consumers sufficient to substantiate the testimonials' typicality. In any event, as the Administrative Law Judge found, "consumers do not have the competence to evaluate whether stopping distance improvements or wheel lockup control have occurred" (I.D. at 41, citing I.D.F. 58, 64), so consumers' perceptions of improved braking performance cannot substantiate the respondents' claim. We find that the reports of consumer experiences are not adequate to substantiate the

³² The respondents do not clearly identify their substantiation for the testimonial typicality claim.

respondents' claim that the testimonials reflect the typical experience of a Brake Guard consumer.

We also agree with the Administrative Law Judge that the experiences related in the respondents' testimonials cannot accurately reflect typical consumer experience with the Brake Guard device. I.D. at 41. We find that the respondents' typicality claim is false as well as unsubstantiated. Carefully controlled road testing conducted by NHTSA demonstrates that, contrary to what is claimed in the respondents' testimonials, the Brake Guard device does not reduce stopping distances and wheel lockup. See discussion at pp. 15-19, 26, supra. The favorable experiences related in the respondents' testimonials are inconsistent with reliable test results and cannot reflect the typical experiences of consumers. I.D. at 41. Even if the individual experiences of the consumers whose letters were used in the respondents' advertising were accurate, they cannot be typical experiences and are at best statistical outliers. See Cliffdale Associates, Inc., 103 F.T.C. 110, 173 (1984).

V. INSURANCE DISCOUNT CLAIM

We next consider whether the respondents made false and unsubstantiated representations that installation of their braking device qualifies a vehicle for an insurance discount in a significant proportion of cases. The Administrative Law Judge

concluded that affidavits submitted with complaint counsel's motion for summary decision established that installation of the respondents' braking device will not qualify a vehicle for a discount in a significant proportion of cases, and that at the times the respondents disseminated their advertisements, they had no reasonable basis for their claim. Partial Summary Dec. (Ins. Discount) at 10-12. We agree.

Sworn affidavits from representatives of five large auto insurance companies (including State Farm, the largest in the United States) and others thoroughly familiar with industry practice, such as representatives of Insurance Services Office, Inc. ("ISO"),³³ a major insurance industry rating organization, and the National Association of Insurance Commissioners ("NAIC"),³⁴ establish beyond question that not all companies provide a discount for antilock brakes. Id. To the extent any discount is available, it is industry practice to limit the discount to factory-installed systems. Id. F.2-7. These affidavits establish that it is highly unlikely that a vehicle could obtain a discount for after-market ABS in more than an

³³ ISO develops multi-state manuals for insurance companies regarding calculation of discounts for safety equipment on cars and makes state filings of the manuals on their behalf when it has been authorized to do so. ISO Aff., Attach. C, ¶¶ 2, 3-4.

³⁴ NAIC is an association of the chief insurance supervisory officials in all 50 states, the District of Columbia, and territories of the United States. NAIC members, or their staff, review or approve insurance company rate filings. NAIC Aff., Attach. G, ¶ 1.

insignificant proportion of cases, and the respondents' claim that installation of their braking device "will qualify a vehicle for an automobile insurance discount in a significant proportion of cases" (Complaint ¶ 7(b)) is false and misleading.

In contrast to complaint counsel's sworn affidavits from industry and government officials, the respondents produced an unsworn, handwritten letter, dated November 3, 1995, from an insurance broker in Spokane, Washington. Id. F.9. The broker's letter stated that three insurance companies offered discounts for cars equipped with antilock brakes and accepted Brake Guard-equipped vehicles for the allowable discount. Id. F.15-16. We agree with the Administrative Law Judge that the post-claim evidence is not "significantly probative." Partial Summary Dec. (Ins. Discount) at 11, citing SEC v. Murphy, 626 F.2d 633, 640 (9th Cir. 1980). At best, the respondents' letter demonstrated that three insurance companies out of 1456 in the United States may have offered discounts for some period of time for vehicles equipped with the Brake Guard device. Id. at 10. Even at the time the claim was made, the letter does not substantiate the respondents' claim that a discount was available in a significant proportion of cases.

Even disregarding the limited scope of the document, a letter written in 1995, two years after the respondents disseminated their insurance discount claims (id. F.9), is not sufficient to substantiate the respondents' insurance discount

claims. A firm's failure to possess and rely on a reasonable basis for an objective claim at the time the claim is made is an unfair or deceptive act or practice in violation of Section 5. See, e.g., Pfizer, Inc., 81 F.T.C. at 64; Advertising Substantiation Statement, 104 F.T.C. at 840-41.

VI. OTHER ISSUES

The respondents assert that this proceeding is not in the public interest because they "have had few complaints" about their device. R.A.B. at 21. The number of consumer complaints has no bearing on whether the public is being harmed by the respondents' false or unsubstantiated claims. Expert testimony established that consumers are unable to determine by themselves whether the Brake Guard device performs as the respondents claimed in their promotional materials. I.D.F. 58, 64; Tr. 813, 823-24, 1132. The respondents have offered no other support for their implicit request that the Commission revisit its determination that this proceeding is in the public interest.³⁵ The Commission will revisit such a determination only in the most extraordinary circumstances. See American Aluminum Corp., 84 F.T.C. 21, 51 (1974); Pepsico, Inc., 83 F.T.C. 1716 (1974); Exxon Corp., 83 F.T.C. 1759, 1760 (1974). No such circumstances have been demonstrated here.

In addition to seeking dismissal of the case, the respondents seek other relief. See R.A.B. at 22. The respondents seek "acknowledgement and recognition of all of [their] claims by the Commission." Id. This opinion fully addresses the Commission's findings with respect to the respondents' claims. The respondents also seek an acknowledgment

³⁵ The Commission made a public interest determination at the time the complaint issued. See Complaint; FTC Act § 5(b).

"that the NHTSA found Brake Guard to be free of safety-related defects." Id. This case does not present the issue whether the Brake Guard device has defects related to safety or otherwise. The case involves particular advertising claims, one of which is that the Brake Guard device makes a vehicle safer than a vehicle that is not equipped with the device. On that issue, discussed above³⁶, the Commission has found that the respondents lacked substantiation for the claim. Even assuming that NHTSA found no safety defects in the Brake Guard device, that fact is irrelevant to evaluating the comparative safety claim at issue here.

The respondents also request that the Commission recommend that Congress investigate: (1) the "initial impetus for the investigation by NHTSA"; (2) the purported role of automobile manufacturers and respondents' competitors in instigating the case; (3) the relationship between NHTSA and FTC staff and the Southwest Research Institute; and (4) the relationship between FTC staff and the Administrative Law Judge. Id. The respondents cite no factual basis for these requests and for that reason alone, the respondents' request is properly denied.³⁷ Cf.

³⁶ See discussion at p. 34, supra.

³⁷ To the extent that the request for an investigation can be read to suggest that automobile manufacturers would have engaged in an impropriety in contacting the Commission with respect to the respondents' practices, it is important to note that in issuing the complaint the Commission made its own determinations of public interest and reason to believe the law had been violated. Whether automobile manufacturers or others
(continued...)

Hospital Corporation of America v. FTC, 807 F.2d 1381, 1392 (7th Cir. 1986) (rejecting argument raised in "off-hand * * * manner").

For the reasons stated below, we deny the respondents' request of July 11, 1997, for permission to add two items to the record.³⁸ The first is an incomplete copy of a FAA Advisory Circular dated October 1991. The second is a report summarizing consumer complaints to NHTSA through March 1996.

The FAA Circular relates, inter alia, to procedures for reporting field conditions at airports during winter operations. In Appendix 4 to the Circular, an instrument known as the "Bowmonk Decelerometer" is listed as one of two FAA-approved decelerometers. According to Brake Guard, the fact that the Bowmonk Decelerometer is one of the decelerometers approved by

³⁷(...continued)
contacted the Commission to complain about the respondents' claims has no bearing either on the public interest of the proceeding or on the merits of the case.

³⁸ In deciding whether to reopen the record to receive supplemental evidence, the Commission considers: (1) whether the moving party can demonstrate due diligence (that is, whether there is a bona fide explanation for the failure to introduce the evidence at trial); (2) the extent to which the proffered evidence is probative; (3) whether the proffered evidence is cumulative; and (4) whether reopening the record would prejudice the non-moving party. See, e.g., Chrysler Corp. v. FTC, 561 F.2d 357, 361-63 (D.C. Cir. 1977) (affirming admission of supplemental evidence by Commission in Chrysler Corp., 87 F.T.C. 719, 750 n.38 (1976)). See also 16 C.F.R. §§ 3.51(e)(1), 3.54(a) (Commission may reopen record to receive additional evidence).

the FAA is significant because it "refutes the ALJ's decision * * * dismissing the Bowmonk Decelerometer as non-acceptable."³⁹

The respondents do not attempt to explain their failure to come forward with this document earlier. There is no question that the respondents were on notice that the reliability of instrumentation used in testing braking devices would be at issue. In October and November 1996, two of complaint counsel's experts testified regarding the importance of appropriate instrumentation in stopping distance tests (Tr. 887-88 (Mr. Hague); Tr. 1201-04, 1225-27 (Mr. Kourik)), and on cross-examination, Mr. Kourik stated that it is not appropriate to convert deceleration data into stopping distances. Tr. 1279. The respondents' inquiry as to Mr. Kourik's familiarity with the Bowmonk VI decelerometer (Tr. 1279-81) demonstrates conclusively that the respondents knew that the reliability of the instrument would be at issue. Nonetheless, they did not attempt to introduce the FAA Circular when their own expert, Mr. Brinton, testified in February 1997 concerning his use of the Bowmonk VI in his post-complaint stopping distance tests. RX 216. The

³⁹ The respondents' expert, Mr. Brinton, used the Bowmonk Mark VI to measure deceleration in his stopping distance tests. RX 216. The Administrative Law Judge found that the Bowmonk Mark VI had too large an error rate to be reliable for the respondents' purposes and that "Mr. Brinton's insistence that the Bowmonk is reliable is questionable because he is a distributor of this equipment." I.D.F. 99.

respondents have failed to demonstrate due diligence with respect to this document.

The FAA Circular also would have little, if any, probative value. Nothing in the FAA Circular undercuts the finding of the Administrative Law Judge that the Bowmonk Mark VI has an error rate of 2 percent, which does not satisfy SAE's recommendation that equipment used to measure stopping distances have an error rate of less than 0.5 percent for speed and 1 percent for distance. I.D.F. 99. In addition, the reliability of the measuring equipment was only one of many reasons for rejecting the stopping-distance data generated by the respondents' expert. See discussion at pp. 31-32, supra; I.D.F. 97-99.

The second item is a March 6, 1996, report summarizing consumer complaints to NHTSA regarding antilock brake problems. The respondents do not explain their delay in coming forward with the complaint summaries, except to refer to the "high cost of obtaining and copying the data" and "the time required for the Department of Transportation to provide the data." Although the respondents apparently were not aware of the existence of the complaint summaries until October 21, 1996, when they were offered in a companion case, Automotive Breakthrough Sciences, Inc., Docket No. 9275 (see Tr. 199), a NHTSA official, Robert Young, testified that the complaint summaries are publicly available and may be obtained easily at any time. See Tr. 226.

In any event, we find that the report lacks probative value. It consists of hearsay statements and does not refer to consumer experiences with the Brake Guard device. As stated by NHTSA on each page of the report: "The summaries are extracted from statements made by customers in letters and/or vehicle owner questionnaires which were forwarded to the agency. The statements allege problems that have not been verified by the agency." The summaries simply do not demonstrate either that Brake Guard is an ABS device, or that, as the respondents assert, the Administrative Law Judge erred in concluding that consumers cannot accurately measure wheel slip or stopping distance.

We also deny the respondents' request by letter of November 18, 1997, that six items be added to the record.⁴⁰ The respondents state that the six items are submitted in "respon[se] to a request for information" by Chairman Pitofsky at oral argument. The Chairman asked the respondents to identify which tests "demonstrate no slippage, no sliding" of a vehicle when the Brake Guard device was installed. Oral Argument Tr. 34. Brake Guard's representative at oral argument stated that he could not identify these tests "at this moment" but that he would be able

⁴⁰ The items are: (1) a video tape entitled "Demo Q & A/Install"; (2) a video tape entitled "Brakeguard Test Texas SW Research"; (3) a video tape entitled "1991 Caprice Classic"; (4) a video tape entitled "92 Caddy/Brooks A.F.B."; (5) a document entitled "Slovenija Test Report"; and (6) a notebook with approximately 800 testimonials about the respondents' device.

to do so "later on." Id. The Chairman said that would be "[f]ine." Id. at 35.

The Chairman's question referred to tests already in the record, not new evidence.⁴¹ Nonetheless, five of the six items are new.⁴² The respondents do not explain why these items were not offered in a timely fashion, or if duly proffered, whether or why the Administrative Law Judge declined to admit them into evidence. In any event, we have considered the new materials and conclude that they are not probative and otherwise do not satisfy the test for reopening the record for the purpose of receiving supplemental information. See discussion at n.38, supra.

One of the proffered items, a videotape of stopping distance tests conducted by Southwest Research Institute ("SWRI") in July 1992, shows SWRI conducting its tests, with occasional commentary on purported stopping distances by an off-camera, unidentified speaker. The report reflecting the results of these tests (CX

⁴¹ Following the question raised by Chairman Pitofsky, Commissioner Azcuenaga stated :

I'd like my colleagues to correct me if I'm wrong. In response to Chairman Pitofsky's questions, Dr. Burzell said that he would follow up later on, and I'd simply like to mention because the Respondents are appearing pro se that as I understand it that was a question seeking information with reference to the record, to the existing record, and that that follow-up should be provided very expeditiously.

Oral Argument Tr. 44.

⁴² The first item, a videotape with the caption "Demo Q & A/Install," is identical to CX 146.

56) is already in evidence, and the videotape does not provide any additional probative evidence.

The videotapes, "1991 Caprice Classic" and "92 Caddy/Brooks A.F.B.," suffer from numerous deficiencies and omissions. They show road tests with commentary on stopping distances by an unidentified speaker. The videotapes provide virtually no information about test protocol, and do not provide any information about the type of stop (e.g., "best efforts" or "panic"); how stopping distances were measured;⁴³ how speed was controlled; or how the test vehicles were instrumented. The videotape of the Caprice Classic shows the third and fourth test runs of what purports to be a stop without the Brake Guard device at 65 m.p.h., but does not show the first or second runs, or explain their absence. These videotapes do not meet the requirements for a valid wheel slip or stopping distance test. See discussion at pp. 15-16, 24-25, supra.

The fifth item proffered by the respondents consists of text

⁴³ For example, in the fourth video tape, the driver is told to "pace off the difference" between two stops.

The sixth item, a collection of testimonials concerning the respondents' device, is also not probative. As discussed earlier, consumers lack sufficient expertise to quantify wheel slip or stopping distances accurately. See discussion at p. 34, supra; I.D.F. 58, 64.

VII. RELIEF

The Commission has wide discretion in its choice of a remedy, and it is authorized to enter an order that is sufficiently broad that it will ensure that the respondents will refrain from engaging in like or related law violations. See, e.g., FTC v. Ruberoid Co., 343 U.S. 470, 473 (1952); Jacob Siegel Co. v. FTC, 327 U.S. 608, 611-13 (1946). The discretion of the Commission is limited by two constraints. First, the order must be sufficiently clear and precise that the requirements of the order can be understood. See FTC v. Colgate-Palmolive Co., 380 U.S. 374, 392 (1965). Second, the order must bear a "reasonable relation" to the unlawful practices. Jacob Siegel Co., 327 U.S. at 612. The Commission, therefore, may include in an order relief designed to enjoin the particular practices found unlawful as well as "fencing-in" provisions designed to deter the respondents from engaging in similar acts or practices in the future.

In determining whether fencing-in relief is appropriate, the Commission considers the seriousness and deliberateness of the

violations; the ease with which the unlawful conduct can be transferred to other products; and whether the respondents have a history of past violations. See Thompson Medical Co., 104 F.T.C. at 833. The more egregious the facts with respect to one of these elements, the less important it is that other negative factors be present. See Sears Roebuck & Co. v. FTC, 676 F.2d 385, 392 (9th Cir. 1982); Thompson Medical Co., 104 F.T.C. at 833.

The Commission adopts Paragraphs I and II of the order proposed by the Administrative Law Judge. These provisions prohibit the respondents from making the claims challenged in the complaint and found unlawful in this proceeding. In addition, we find that the serious and deliberate nature of the respondents' practices and their ready transferability to other products and claims justify fencing-in relief. We therefore extend Paragraphs III, IV and V of our order beyond the products for which the challenged claims were made.

In connection with Paragraph I, although the respondents have not appealed this issue directly, we have considered whether the deception inherent in the respondents' use of the acronym "ABS" is best remedied by prohibiting the respondents from using the term in conjunction with, or as part of, their trade name. Brand name excision is a remedy that is available to the Commission when a less restrictive remedy, such as a required affirmative disclosure, is insufficient to eliminate the

deception conveyed by the name. See Thompson Medical Co.,
104 F.T.C. at 837. The relevant question is whether any less
restrictive means exists for eliminating the deception inherent
in the respondents' use of "ABS" within their trade name or
trademark or in advertising their Brake Guard product. See Jacob
Siegel Co. v. FTC, 327 U.S. at 612; FTC v. Algoma Lumber Co.,
291 U.S. 67, 81-82 (1934);

the shorthand expression "ABS" appears without an accompanying explanation, which reflects a high degree of confidence among industry marketing personnel that the consuming public has a clear understanding of the meaning of the term. See Id. Exh. 1, Attachs. 12, 19, 21; Exh. Attachs. 3, 7, 10-12, 15-16, 18-19. The fact that consumers commonly use the "ABS" acronym to refer to antilock brakes in their contacts with NHTSA officials is another reliable indicator that consumers would assume that a product described as "ABS" is an antilock braking system. See id. Exh. 1 ¶¶ 2-3.

In light of the strong association of the acronym "ABS" with antilock brakes and their performance attributes, adding a qualifying phrase would result in a contradiction in terms and would likely confuse consumers. See Continental Wax Corp., 330 F.2d at 479-80 (holding that where "the offending deception is caused by a clear and unambiguous false representation implicit in the product's name," and therefore a qualifying phrase would lead to a confusing contradiction in terms, "no remedy short of complete excision of the trade name will suffice"). The potential for confusion is of particular concern to us here, where the product and claims relate to safety and performance of a motor vehicle.

Turning to the fencing-in provisions in Paragraphs III, IV and V of the order, the serious and deliberate nature of the respondents' violations is reflected in their willingness to

mount a broadly based campaign to market their braking device as an antilock system without regard to whether there was reliable information to support their claims and in the face of substantial information that the claims were false. I.D. at 43-45. They even manipulated a test in order to generate results that would support their claims, and they disseminated these test results in advertising. I.D. at 44; I.D.F. 80. When we take into account that these are "credence" claims that consumers cannot evaluate accurately on their own, when we consider the context, that the claims and product involve the performance and comparative safety of a motor vehicle, and when we note the respondents' apparently deliberate disregard for testing results inconsistent with their claims, we readily conclude that strong fencing-in relief is required to prevent recurrence of the respondents' unlawful conduct. See Kraft, Inc., 114 F.T.C. 40, 140, 142 (1991), aff'd, 970 F.2d 311 (7th Cir. 1992), cert. denied, 507 U.S. 909 (1993); Thompson Medical Co., 104 F.T.C. at 832-33; Sears, Roebuck, 676 F.2d at 392; Litton Indus., Inc. v. FTC, 676 F.2d 364, 370-72 (9th Cir. 1982).

Although the respondents do not object directly to the scope of the relief ordered by the Administrative Law Judge, they contest his finding that adverse results of tests conducted by several organizations should have put them on notice that their claims were unsubstantiated and false. See R.A.B. at 16. The respondents' argument seems to be that because the Administrative

Law Judge impeached the validity of the tests yielding the adverse results (and, indeed, all the testing other than that performed by NHTSA), those tests should have "no bearing on any scientific inquiry," and their adverse results, therefore, should not be held to have put Brake Guard on notice concerning possible deficiencies in their claims. Id.

The Commission does not believe it was reasonable for the respondents simply to disregard test results that were inconsistent with their product claims. Indeed, their apparent failure to obtain an independent and scientific assessment of the adverse test results before continuing their advertising campaign suggests that they did not want to discover the truth. In any event, as discussed above,⁴⁴ competent and reliable tests conducted by NHTSA (which the respondents also appear to have ignored) demonstrate clearly that the Brake Guard device does not reduce stopping-distance or control wheel slip, and that it is not the equivalent of OEM ABS. See I.D. at 43; I.D.F. 106-40.

We also find that the risk of transferability of the violation justifies limiting future claims regarding products in addition to the Brake Guard device. The respondents have demonstrated a lack of concern for proper scientific methodology in the serious context of motor vehicle safety and performance. They have shown a willingness to disregard the results of

⁴⁴ See discussion at pp. 15-20, 26, supra.

competent and reliable tests with respect to a product that is designed for use on a motor vehicle, reflecting a recklessness that could be transferred to the testing of other products. Cf. American Home Products

⁴⁵ Compare ALJ Order ¶ III ("any braking system, accessory, or device"); with ALJ Order ¶ IV ("any product in or affecting commerce"); and ALJ Order ¶ V ("any braking system, accessory, or device, or any other system, accessory, or device designed to be used in, on, or in conjunction with any motor vehicle").

are likely to expand their areas of endeavor beyond automobile and other motor vehicle accessories and devices, we do not believe that all-products coverage is necessary. Cf. Kraft, Inc., 970 F.2d at 327 (violations with respect to Kraft Singles found transferable only to other Kraft cheese products). Therefore, Paragraphs III, IV, and V of the final order apply to "any braking system, accessory, or device, or any other system, accessory, or device designed to be used in, on, or in conjunction with any motor vehicle." The fencing-in coverage in Paragraphs III, IV and V is consistent and, we believe, appropriately tailored.

VIII. CONCLUSION

On the basis of these facts and for the reasons set forth in this opinion, the Commission concludes that the respondents have engaged in unfair or deceptive acts or practices in violation of Section 5 of the Federal Trade Commission Act. The Commission issues the attached final order.