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Federal Mine Safety and Health Review Commission  
Office of Administrative Law Judges

SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), PETITIONER	Civil Penalty Proceedings Docket No. SE 79-110 A/O No. 01-00347-03023
v.	Docket No. SE 79-82 A/O No. 01-00347-03021
ALABAMA BY-PRODUCTS CORPORATION, RESPONDENT	Docket No. SE 80-8 A/O No. 01-00347-03030  Segco No. 1 Mine  Docket No. SE 79-33 A/O No. 01-00515-03015  Docket No. SE 79-74 A/O No. 01-00515-03019  Docket No. SE 79-108 A/O No. 01-00515-03020  Docket No. BARB 79-215-P A/O No. 01-00515-03008  Mary Lee No. 1 Mine  Docket No. SE 79-123 A/O No. 01-00340-03024  Gorgas No. 7 Mine

DECISION

Docket No. SE 79-110 was originally assigned to me. The other listed docket numbers were subsequently consolidated with SE 79-110 because of the similar parties and issues. While all of the files do not contain identical documents, Respondent's motion for summary decision and supporting papers, together with MSHA's opposition and supporting affidavit, are applicable to all of the consolidated cases. After the motion was filed and briefed, the

parties entered a stipulation resolving all factual disputes and submitted the matter for decision on the stipulation and further briefing. By submitting the stipulation and further briefing based thereon, Respondent has abandoned its motion for summary decision. This decision is therefore based on the stipulation and arguments. Also, there is another sizable group of cases which have been consolidated under the caption Secretary of Labor v. North American Coal Corporation, et al., Docket Nos. LAKE 79-118, et al., which involve the identical issue although facts were not stipulated in those cases.

The question before me is whether there is a valid and enforceable respirable dust standard. On June 28, 1974, in Secretary of Labor v. Olga Coal Company, Docket No. HOPE 79-113-P, I issued a decision in which I held that "there is not now and never has been a valid enforceable respirable dust program \* \* \*" (Dec., p. 2). I had previously made a similar ruling in MSHA v. B.B.W. Coal Company, Docket No. PIKE 76-149-P on January 9, 1979. Those rulings were made without the benefit of briefing and I think it is necessary that I reexamine the matter at this time.

Respirable dust, is an extremely important part of both the 1969 and 1977 Mine Acts. Respirable coal mine dust causes coal miners pneumoconiosis or black lung, and it has been estimated that 173,000 miners and 333,000 survivors are receiving black lung compensation from the Federal Government (see statement of John A. Breslin contained in Bureau of Mines' Information Circular 8753 published in 1973). It is because I consider it such an important program that I have been disturbed by the way the Bureau of Mines, MESA, and MSHA have dealt with that program.

I first considered respirable dust in a decision issued on July 9, 1973, in Valley Camp Coal Company, Docket No. MORG 72-88-P. I was unsatisfied with the quality of the proof offered in the respirable dust violations and rejected the evidence as being unconvincing. Subsequently, the Board of Mine Operations Appeals decided the Castle Valley Mining Company case, 3 IBMA 10 (January 25, 1974), in which it held that a computer printout, standing alone, would establish a violation of the respirable dust standard. I next considered respirable dust in Eastern Associated Coal Corporation, Docket Nos. MORG 73-131-P et al. (December 16, 1974). In that case, I heard experts from MESA's respirable dust laboratory in Pittsburgh, as well as the testimony of Dr. Corn, who had done extensive research in connection with respirable dust. It was during the course of those hearings that I learned that MESA had been completely ignoring the statutory definition of respirable dust since the inception of the program. Instead of attempting to modify its equipment or work out some conversion factor, MESA chose to pretend that Congress had not defined respirable dust as only those dust particles of 5 microns or less in diameter. The evidence clearly established that MESA had been counting, as respirable coal mine dust, particles not only in excess of 5 microns in diameter, but also in excess of 10 microns in diameter. I am attaching as Appendix I excerpts from my opinion

in that case which describe the dust-collecting instruments and the procedure at the Pittsburgh laboratory.

The Interior Department's Board of Mine Operations Appeals eventually ruled that the respirable dust procedures were invalid because MSHA had collected, and counted as respirable coal mine dust, particles which did not meet the statutory definition of respirable dust. Eastern Associated Coal Corporation, 7 IBMA 14 (1976), and 7 IBMA 133 (1976). Again, instead of attempting to modify its equipment, MESA sought, and obtained an order from the Secretary of the Interior staying the effect of the decision of the Board of Mine Operations Appeals. Such an appeal to the Secretary was not provided for in the published rules of the Department and, in my opinion, would not have survived a court test, but the stay was eventually dissolved and the Board's opinion became final.

The golden opportunity for the enforcement branch came on November 9, 1977, when Congress eliminated the statutory definition of respirable dust in the old Act and amended section 202(e) of the Act to read: "References to concentrations of respirable dust in this title mean the average concentration of respirable dust measured with a device approved by the Secretary and the Secretary of Health, Education and Welfare." While this is not a definition of respirable dust, it does appear to give the Secretary of Labor and the Secretary of Health, Education and Welfare the opportunity to establish a definition of respirable dust based on the size and type of dust which certain equipment collects. The Solicitor has taken the position that because section 202(e) of the Act became effective before the other sections of the Act, the definition of "Secretary" contained in the 1977 Act as the Secretary of Labor was not effective and that therefore, "Secretary" in section 202 means the Secretary of the Interior. The argument goes on that since the Secretary of the Interior and the Secretary of Health, Education and Welfare approved certain devices for the collection of respirable dust back in the 1970, Congress intended to ratify that 7-year old agreement and define as respirable dust anything collected by the MRE or the personal sampling device. This is obviously a contrived piece of backfilling because at no time has MSHA or MESA or anyone else contended that the oversized particles collected by both of these pieces of equipment was respirable dust. To do so would be to contravene the sworn testimony of the experts in the field and would be despite the "Report to the Senate Committee on Labor and Public Welfare", issued December 1975 and the Report of W. G. Courtney, research supervisor, dust control and life support group, dated November 29, 1974. The latter contains the following statements.

\* \* \* \* \*

3. Sampler precision. MESA enforces the dust standard by stipulating that (1) the company use approved personal samplers and (2) the company-obtained 10-shift average for the dust level be less than 2.1mg/m3.

Using data obtained by MESA personnel using approved personal samplers, we have established that the approved samplers have a precision of only 30 pct

(standard deviation) when routinely used in the field.  
Thus, if 100 MESA inspectors went

into the field to measure with approved dust samplers a dust cloud known to have a concentration of 2.0 mg/m3 (MRE equivalent), 68 of their measurements would be between 1.4 and 2.6 mg/m3 and 32 of the measurements would be outside this range.

Assuming that the precision of operator samples is as good as the precision of MESA inspector samples (a dubious assumption), the operator 10-shift average must be greater than 2.36 mg/m3 to be 95 pct confident that the true average concentration is actually above 2.0 mg/m3. More important, a 10-shift average of less than 1.64 mg/m3 is required to assure that the worker is not being exposed to hazardous dust levels as established by law. With the present limited precision of approved personal dust samplers in the field, 129 shifts must be sampled and averaged to reduce the width of the uncertainty to  $\bar{n}$  0.1 mg/m3.

\* \* \* \* \*

5. Sampler flowrate. However, the MESA 0.1 mg/m3 standard for respirable quartz dust does not match any known medical standard. MESA-coal requires that the approved personal sampler be operated at 2.0 l/min when used for enforcement purposes in coal mines, while the semi-official ACGIH recommendation of 0.1 mg/m3 for the respirable quartz dust is based on a sampler flowrate of 1.7 l/min. Our field tests have indicated that similar masses of respirable dust are obtained when the approved personal sampler is operating at 1.7 or 2.0 l/min. Therefore, a quartz dust level of only 0.085 mg/m3 when sampled at 2.0 l/min should be permitted in order to match the ACGIH standard of 0.1 mg/m3 when sampled at 1.7 l/min. The percentage of coal miners being subjected to excessive amounts of respirable quartz dust thus is even higher than 20 pct.

\* \* \* \* \*

We conducted a detailed comparison of company-obtained dust levels with MESA-obtained dust levels for the same sections. Results indicated that, on the average, MESA dust levels are about 30 pct higher than operator dust levels. This poor comparison casts grave doubts about the veracity of operator data and thus the entire MESA enforcement program.

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In summary, the MESA enforcement program to ensure that coal mine personnel are working in a healthful dust-free environment involves seven major features. We have shown that, for

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each of these features, the MESA procedure is unsatisfactory. As a result of this inadequate enforcement program, our coal mine personnel are being subjected to flagrantly hazardous environments, despite public reports to the contrary.

In view of these comments, I cannot believe Congress intended to perpetuate the discredited program. It intended that the Secretary of Labor and the Secretary of Health, Education and Welfare come up with a new definition. They have not done so.

But even if it could be said that it was the Secretary of the Interior and the Secretary of Health, Education and Welfare that could have established a new respirable dust definition, the fact is that such a new definition has not been established. To this day, 30 CFR 75.2(k) states "'Respirable dust' means only dust particulates 5 microns or less in size." It is axiomatic that an agency binds itself by its own regulation even though the Act of Congress would allow a different result. *Vitarelli v. Seaton*, 359 U.S. 535 (1959); *Accardi v. Shaugnessy*, 347 U.S. 260 (1945); *Service v. Dulles*, 354 U.S. 363 (1957); *Pacific Molasses Company v. Federal Trade Commission*, 356 F.2d 386, 389 (5th Cir. 1966). Under these authorities, the definition of respirable dust is still particles (particulates) of 5 microns or less in diameter. Under that standard, the program cannot be enforced using the type of collection equipment which MSHA currently uses. \*

In my view, MSHA has two choices in order to institute an effective and enforceable respirable dust program. One, it can either develop equipment or modify equipment so as to collect and weigh only particles 5 microns or less in diameter or two, it can amend its regulations so as to rescind the definition contained in 30 CFR 75.2(k) and have the Secretary of Labor and the Secretary of Health, Education and Welfare agree on a new definition for and a device for the measurement of respirable dust.

In view of the importance of any early resolution of this matter, I urge the Commission to review this case on its own motion under 29 CFR 2700.71 and set an accelerated briefing schedule.

Judgment is for Respondent and the citations are vacated.

Charles C. Moore, Jr.  
Administrative Law Judge

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I realize this paragraph is contrary to some of my previous rulings regarding respirable dust, but I now believe that the 5-micron definition is still in effect.



APPENDIX I

EXCERPTS FROM JUDGE MOORE'S DECISION IN  
EASTERN ASSOCIATED COAL CORPORATION  
DOCKET NOS. MORG 73-131-P et al (Dec. 16, 1974)

With reference to these 22 respirable dust violations, (footnote omitted) in Castle Valley Mining Company, 3 IBMA 10 (January 25, 1974) the Board of Mine Operations Appeals decided that the computer printout designated as a Notice of Noncompliance creates prima facie proof of the facts asserted therein regarding the respirable dust content of tested samples. In the absence of any rebutting evidence the printout's introduction into evidence may establish the violation. MESA relied almost exclusively on Castle Valley in its presentation of the instant case.

In the Castle Valley case, however, there were a number of other holdings by the Board that bear on the outcome of the instant decision. In that case there had been no evidence, except for that contained in various circulars of which the Board of Mine Operations Appeals took official notice, of the testing procedures employed by MESA's testing laboratory in Pittsburgh, Pennsylvania. The Board took official notice also that the techniques employed by MESA in respirable dust testing "are based upon scientific principles generally recognized in the scientific community." But, as pointed out by Respondent, the Board relied on facts "officially noticed" without giving the parties an opportunity to rebut such facts as required by the Administrative Procedure Act. Inasmuch as the Respondent in that case did not appear at the hearing before the Board, however, the Board may have reasoned

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that Respondent was in default and thus not entitled to the opportunity to rebut officially noticed evidence. In any event, Respondent Eastern Associated Coal Corporation is challenging the scientific validity of MESA's testing procedures in the instant case, and its right to do so was specifically recognized by the Board on page 14 of its Castle Valley decision where it stated "of course, either the operator or MESA may question the reliability of the system at any stage."

Other statements about notices of noncompliance made by the Board in Castle Valley which bear on the decision in the instant case are:

[at page 19] All other circumstances of the making of such writing or record, including lack of personal knowledge by the enterant or maker, may be shown to affect its weight, but the circumstances shall not affect its admissibility.

[at page 21] This section does not make a government document received in evidence conclusive, irrefutable, or immutable. If such papers do not speak the truth, the defense can prove the untruth of the document.

[at page 22] Full discovery procedures were available to Castle Valley had they had any reason to question the reliability of the information recorded in the Notice of Noncompliance.

Respondent in this case has taken advantage of the discovery procedures provided by our rules and has attempted to prove the unreliability of the testing procedure. Although it has not actually demonstrated the untruth of any particular Notice of Noncompliance, Respondent has made such a showing that I cannot simply rely on Castle Valley and rule that the Notices of Noncompliance in evidence in this case establish the fact that Respondent has violated the respirable dust standard.

Regarding respirable dust, its definition, and measurement, we were indeed fortunate to have as witnesses such eminent experts as Dr. Morton Corn who has studied the subject for many years, Mr. Murray Jacobson who has also been involved in the respirable dust program for many years and who in fact set up the testing program in issue in this case, and Mr. Paul Parobeck who is currently in charge of the MESA respirable dust laboratory in Pittsburgh.

Respirable dust does not consist of coal dust exclusively. It is coal mine dust which would include fine particles of coal as well as any other fine particles of rock or other dust that may be found in a coal mine. When a miner breathes the dust contained in the atmosphere of a coal mine, a certain portion of that dust is filtered out in the nose, trachea and bronchial areas of the respiration system and another portion is deposited in the lungs or pulmonary compartment. Years of study have shown that it is the larger particles that are filtered out or deposited on surfaces of the respiratory system before reaching the lungs. It is only those small particles that pass through the filtering system and are deposited in the lungs which will lead to the disease known as coal miner's pneumoconiosis and which are accordingly called respirable dust.

Some of the testimony concerning respirable dust referred to a Bureau of Mines information circular dated February, 1971, entitled Sampling and Evaluating Respirable Coal Mine Dust bearing the number IC8503. On page three of that document, there appears a graph which plots the diameter and density of the particles of coal mine dust against the percentage of penetration or deposition of such dust in the lungs, in a personal sampler device and in an MRE instrument. (FOOTNOTE 5) While it is not exactly clear from the graph itself, the solid line indicates the manner in which various sizes of dust are deposited in the lungs, the dashed line designated "AEC", (a development of the Atomic Energy Commission,) indicates the same information with respect to deposition in the personal respirable dust sampler, developed by the Bureau of Mines and the line consisting of both dashes and dots and designated "MRE" indicates the amount of dust deposited in an MRE Isleworth Gravometric Dust Sampler, which is referred to as the MRE instrument. So far as the two instruments are concerned, deposition as depicted by the graph, indicates that part of the coal mine dust which is deposited in the section of the instrument which is designed to be equivalent to the lungs, i.e. the filter. Both instruments contain areas which are designed to eliminate dust that would ordinarily be deposited in the nose, trachea or bronchial areas of the human respiration system. The two instruments do this filtering out of the larger non-respirable particles by taking

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advantage of the fact if two spherical particles composed of the same substance are allowed to fall in an atmosphere, the larger particle will fall faster. This is because, as the size of spherical particles increase the cross-sectional diameter and therefore the air resistance is not increased to the same extent as the volume (thus the mass of the particle) increases. In moving air, therefore, the larger particle will fall out sooner than the smaller particle. In the MRE instrument the air flow rate is such that the large particles fall out along the horizontal elutriator and only the smaller particles are deposited upon the filter which is later weighed. The air flow rate in this instrument is 2.5 liters per minute. It is obvious, that if the air flow in this instrument were increased, the larger particles would be deposited upon the filter whereas if it were decreased, particles normally reaching the filter might be deposited in the elutriator.

The personal sampler works on the same principle except that a cyclonic system is used to cause increased acceleration for the purpose of driving larger (i.e. heavier) particles to the outside of the circling atmosphere. The personal sampler must operate with an air flow of 2 liters per minute, and it is equally obvious that in this system an increase in the air flow will increase the G loads and thus cause the particles which might ordinarily reach the filter to drop out earlier, whereas too low an air flow would cause such larger, non-respirable particles to reach the filter. Any variation in the air flow in the two instruments therefore has the opposite effect. In one, increased air flow would cause an error of too small a particle being deposited on the filter whereas the same increased air flow in the other instrument would cause too large a particle to be deposited on the filter. The proper rate of air flow is thus extremely critical to both instruments.

Assuming both instruments are properly adjusted, the graph on page 3 of Information Circular 8503, [Figure I herein] shows that neither instrument collects on its filter, dust exactly corresponding to that collected by the lungs. The graph indicates that the MRE instrument will collect particles up to 7.1 microns in diameter whereas the personal sampler will collect particles up to 10 microns in diameter. While the graph is not exactly clear as to the pulmonary deposition, it appears to indicate deposition of particles up to somewhere between slightly over 6 microns and 7 microns in the lungs. There are other significant differences in the graphs. For example, both the personal sampler and the MRE instrument collect between 90 and 100 percent of the coal mine dust 2 microns in diameter whereas the lungs collect only

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FIGURE I

TABLE

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somewhere between 70 and 75 percent of that size particle. The lungs collect only 54 percent of the particles that are a half micron in diameter whereas both instruments collect almost 100 percent of that size of particle. But it must be assumed that the Congress knew of the collection curves involved when it passed the Act and defined respirable dust as those particles of coal mine dust 5 microns or less in diameter. And, in the area between 5 micron particles and 2 micron particles the personal sampler curve is very close to the pulmonary curve. While the personal sampler does collect particles up to 10 microns in size, it collects a very small percentage of particles with a diameter in excess of 7 microns. The fact remains, however, that the instruments do collect particles larger than the statutory definition of respirable dust. (FOOTNOTE 6)

From the aforementioned distribution curve, it appears that both the lungs and the personal sampler collect slightly more than 20 percent of the particles that are 5 microns in diameter. The personal sampler collects almost no particles that are 10 microns in diameter, and from observing the curve it would appear that the personal sampler collects approximately 10 percent of those particles between 5 microns in diameter and 10 microns in diameter. The fact that the personal sampler collects 10 percent of the dust that is larger than the statutory definition of respirable dust, however, does not mean that 10 percent of the dust collected by the sampler is too large to be considered respirable dust. It means that whatever quantity of that size particles is contained in the mine atmosphere, the personal sampler will collect 10 percent of that total quantity on its filter.

While there was no testimony on the point, it would seem reasonable that a slight increase in the air flow of the personal sampler would tend to prevent the larger particles of dust in excess of 5 microns in diameter from being deposited upon the filter. I must assume, however, that if such a simple solution would work, it would have been undertaken and that, therefore, any increase of air flow would affect the accuracy of the device in collecting the smaller particles of respirable dust. Also, it may be that rather than trying to approximate the human respiration system, the technicians should seek to devise an instrument which will measure and weigh only particles of dust 5 microns or less in diameter, but such a determination is not within the province of this hearing. We deal here with the devices as they exist, not as they might be.

The dust sampling procedure established by the Bureau of Mines has been described in Information Circulars 8484, 8520, and 8503, as well as in other publications of the Bureau of Mines and MESA. The testimony in this case agrees with the descriptions referred to and will only be explained herein in general terms. In general, the mine operator purchases cassettes for the purpose of measuring respirable dust from a manufacturer who has its cassettes and the empty filter weight data checked by the Bureau of Mines on a routine basis. The cassette has a serial number and a mine data card accompanying it has the same number. After the test has been run in the personal sampler the cassette and mine data card, filled out so far as required, are forwarded to the Pittsburgh testing laboratory.

The Pittsburgh testing laboratory is maintained under controlled temperature and humidity and at a pressure slightly higher than the surrounding areas so that there will be no dust drawn into the laboratory. The cassettes received from the mine operator are opened in the laboratory, and the mine data card and capsule containing the filter are placed on trays and the numbers on the card and capsule are checked. They are then desiccated i.e. dried, to remove any moisture that might otherwise affect the weight, and moved to an electronic balance where devices are placed to nullify any electrostatic effect that might distort the actual weight of the filter. The filter is weighed on the electronic balance and an operator notes the weight and writes it down on the mine data card. At that point the technician performing the weighing operation makes a mental calculation to determine if the weight gain, that is the difference between the recorded empty weight of the filter and the weight of the filter with the dust particles deposited thereon, is greater than 6 milligrams.

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If it is, the sample is put aside for testing for oversize particles, but if there is a weight gain of 6 milligrams or less, the sample is discarded and destroyed. No record is kept on the mine card or anywhere else as to which of a number of technicians made the actual weighing on any particular sample. After the weighing, the results are punched out on a keypunch teletype system by one operator and then a different person keypunches the same data again. The system is such that if the two operators do not punch out exactly the same data, an automatic notification is given so that the operators can check to see if one or the other made an error in transcribing the information from the mine data card. The data punched into the system, goes directly to the computer in Denver, Colorado which, at a later date, determines if any 10 consecutive valid samples comply or do not comply with the standard in effect.

Throughout this procedure, at several places, the mine data card and filter identification numbers are checked. But there was at the time of the violations involved in this case, no double check of the visual weight display observed by the person operating the balance. At a later time, subsequent to Mr. Parobeck's deposition (Respondent's Exhibit 14) but prior to the hearing, a spot check system was instituted whereby a certain number of these weighings were later duplicated by a different operator on a random basis to see if a discrepancy had occurred.

The testimony indicated that the decision to check filters showing a weight gain greater than 6 milligrams was an arbitrary decision not based on any particular studies. With respect to those capsules, showing the 6 milligram weight gain, first they are examined to see if oversized particles appear visually without the aid of a microscope. If such particles appear the sample is voided. If they do not appear, however, the filter is examined under a microscope with various sections of the filter designated as fields. It is not stated in the testimony the exact size of a field, but 10 of these fields are examined and the sample is voided if these 10 fields each show three or more particles that are in excess of 10 microns in size. Mr. Parobeck's testimony made it clear that if nine of these fields all show more than 3 particles in excess of 10 microns but the 10th field did not show such particles, the sample would not be voided. It is thus fairly clear that in addition to the particles over 5 microns in diameter, particles in excess of 10 microns in diameter and thus also not respirable are counted against a Respondent whether the sample



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weight gain is more than 6 milligrams or less than 6 milligrams since no test is taken regarding the weight gains of less than 6 milligrams.(FOOTNOTE 7)

In the Castle Valley case, *supra*, the Board of Mine Operations Appeals stated that a notice of non-compliance which is a computer print-out from the Denver computer, is *prima facie* evidence of a violation which can be rebutted. The Board indicated that in view of the discovery procedures available to a Respondent, he could challenge any notice of non-compliance that might be issued. As testimony has indicated in this case, however, discovery techniques will help a Respondent very little in determining whether or not his sample was actually tested properly. It is clear that he cannot discover who made the actual weighing, he cannot test the sample prior to sending it in because it would then be voided for tampering, and he cannot send in experts to test his sample after it has shown a greater than 3 milligrams result. There is in effect absolutely nothing a Respondent can do to defend itself if the computer print-out shows that it is in violation of the respirable dust standard.

~FOOTNOTE 5

A copy of the referenced graph is designated Figure I.

~FOOTNOTE 6

The fact that in Section 202(e) of the Act it states "references to concentrations of respirable dust in this title means the average concentration of respirable dust if measured with an MRE instrument or such equivalent concentration as measured with another device approved by the Secretary of Health, Education and Welfare" does not mean that anything measured by an MRE instrument or another equivalent device would be respirable dust. While concentrations of such dust are to be measured in such instruments, there is no equivocation or uncertainty about the proscriptions of Section 318(k) which states in no uncertain terms "'respirable dust' means only dust particles 5 microns or less in size ..." (Underscoring supplied)