STATISTICAL METHODS FOR QUALITY CONTROL OF PAVING MATERIALS

INTRODUCTION

By J. O. Izatt[1]

The analysis and interpretation of test data on paving materials is a timely subject and one of foremost interest to the U. S. Bureau of Public Roads and, in turn, to all State highway departments, highway contractors, and highway material suppliers.

The problems basically involve the variations of the test data in any series or sequence and the importance of these variations upon compliance with governing specifications and upon the quality of the finished pavement. These current studies using statistical methods will undoubtedly lead to marked changes in any test methods which are inadequate or to changes in specifications which are either unduly restrictive or inadequate to assure the required quality levels. Wide variations in test data have long been known but little understood, and have been variously regarded and interpreted by highway engineers. These studies, then, are intended to establish normal distributions of test values for any particular test or test series and the permissible variations.

Four papers are included which have been especially selected to present the viewpoints of some of the most significant interests in the field of bituminous pavement construction. The Asphalt Inst. has contributed from its information on the AASHO Road Test and other sources. The U. S. Bureau of Public Roads has initiated a broad research and development project on this subject, and this is reviewed. The viewpoint of the engineer is presented by representatives of Miller-Warden Associates. The New York State Department of Public Works, representing one of the larger state highway organizations, has conducted an evaluation program for a two-year period, the results of which are presented and represent a significant contribution.

[1] Shell Oil Co., New York, N. Y.