
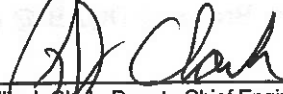
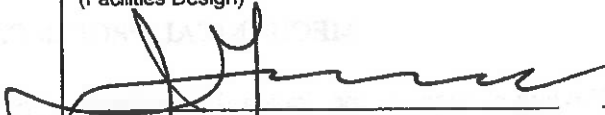


To: SUPERSEDED ^{BY} <i>EI 01-018</i> EFFECTIVE 11/1/01		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 00-018
Title: CUSTOMARY US UNITS ON SHOP DRAWINGS, MANUFACTURER'S CERTIFICATIONS, AND CATALOG CUTS.			
Distribution: <input type="checkbox"/> Manufacturers (18) <input type="checkbox"/> Surveyors (33) <input checked="" type="checkbox"/> Main Office (30) <input checked="" type="checkbox"/> Consultants (34) <input type="checkbox"/> Local Govt. (31) <input type="checkbox"/> Contractors (39) <input checked="" type="checkbox"/> Regions/Agencies (32) <input type="checkbox"/> _____ ()		Approved:  <u>06-13-00</u> Phillio J. Clark, Deputy Chief Engineer Date (Facilities Design)  <u>6-8-00</u> James Tynan, Deputy Chief Engineer Date (Construction)	

ADMINISTRATIVE INFORMATION. This instruction is effective for contracts initially submitted for the letting of November 2, 2000. Contracts let earlier may incorporate its provisions in accordance with information given below. Nothing is superseded. The included proposal insert note text modifies the ninth (eighth in Addenda 1) paragraph of §106-02 of the Standard Specifications of 1995. Future editions of the Standard Specifications will supersede this instruction.

PURPOSE. The purpose of this instruction is to change the Department's present *metric unit only* policy for some drawings and documents developed by suppliers and manufacturers and submitted to the Department during the construction phase of a project.

TRANSMITTED ARTICLES. None, however the text of a future Proposal insert note titled "Mechanical Property Measurements" is included at the end of this instruction.

BACKGROUND. The ninth (eighth in Addenda 1) paragraph of §106-02, Samples, Tests, and Cited Specifications, requires that all mechanical property measurements, dimensions, and all other numerical data shall be metric units based on kilograms, meters, and seconds. This is consistent with the Department's goal to have all-metric contract documents. Most manufactures of common highway products have made the transition, and are supplying all-metric documents that comply with the above. There are a number of manufacturers, however, who are either unable or unwilling to supply metric-only drawings and documents. This has led to contract administration difficulties and inefficiencies in the acceptance and approval processes.

Because systemic inefficiency ultimately is paid for by higher future bid prices, it seems prudent to permit some use of U. S. customary units.

POLICY. S. I. units remain the preferred units of measure, and will be the units generally shown on the contract plans, in the proposal, and in associated exhibits being currently prepared by, or for, the Department and made available to the contractors as Baseline Data. Project specific shop drawings, however, prepared by the contractors or their subcontractors and suppliers shall use either all S.I. units or they may use dual units. Those prepared for rehabilitation of structures will be in both units. The S.I. Units will take precedence, and will be the units that the Department will review. Catalog cuts, manufacturer's certifications, manufacturer's directions, and other similar documents and drawings prepared by industry for general use may be in either the U.S. Customary or S.I. units, or they may be in dual units. The shelf note provides additional details.

This Instruction does not modify the Department's policy on the automation and recordation systems of HMA and PCC production facilities. All automation and recordation systems must operate in SI units by January 2, 2003. After

January 2, 2003, facilities with automation and recordation systems that do not operate in SI units will not be approved to supply material to Department projects.

IMPLEMENTATION. The Main Office Design Quality Assurance Bureau will insert the following proposal insert note into all Proposals, starting with the effective date of this instruction. The following may be made part of contracts let earlier as a Minor Change in Work. The procedure for this is included in §104-03 of the *Contract Administration Manual*. A copy of this instruction will serve as the necessary documentation.

CONTACT PERSON. Larry Brown of DQAB @ (518) 457-4093.

MECHANICAL PROPERTY MEASUREMENTS

Make the following changes to the Standard Specifications of January 2, 1995:

Page 1-64, §106-02, sixth paragraph on page (ninth paragraph of overall subsection), replace the paragraph beginning with "All communications...", and;

Addenda 1, Page I-67, line 47 through page I-68, line 2. (Eighth paragraph of §106-02, beginning "All communications..."), *replace* these lines with the following:

"All communications with the Department, written or verbal, shall be in English. The instructions for the use of all materials and products, as well as all identifying information required by the specifications(i.e., labels, tags, certifications, etc.) shall be in the English language.

Mechanical property measurements, dimensions, and all other numerical data included in documents such as shop drawings and computations prepared specifically for the contract, Material Details, and Manufacturer's Safety Data Sheets shall include the International System (SI) of units, consisting of meters, kilograms, and seconds, but they may also include U.S. customary units as a second set of measurements. Dimensioning in dual unit submissions shall be complete in both systems. The S. I. Units should be the units listed first, and the U.S. Customary Units should be included within parenthesis. The S.I. Units will take precedence and reviews will be based on these units. Failure to adhere to this convention may result in the rejection of the drawing. Shop drawings prepared for bridge rehabilitations, however, shall include both S. I. Units and U. S. Customary Units.

Manufacturers' certificates and documents prepared for general use, such as catalog cuts and manufacturer's directions, may use S.I. or U.S. customary measurement units, or units from both systems. In drawings and documents containing dual units, the S. I. Units will be regarded the primary units, and the S. I. Units will be the units reviewed. The Contractor shall be responsible for all conversions between the measurement systems, all errors resulting therefrom, and annotations on the source documents.

After January 2, 2003, documents which are relevant to the production and acceptance of HMA and PCC mixtures shall be submitted in S.I. Units only. This refers to mix design forms, production monitoring (QC) forms, batching tickets, delivery tickets, and all other mix design and production related documents.

All references to costs, charges, prices, etc., shall be in United States dollars."