

1.0 Introduction

The Department of Defense (DoD) Drawing Practices Group (DRPRO) was chartered under the Defense Standardization Program as a cooperative effort between the DoD and industry to standardize engineering drawing practices, to promote applicable commercial standards, and to foster liaison between DoD and industry associations and other government agencies. The effort prompted an agreement to convert MIL-STD-100 to commercial standards under The American Society of Mechanical Engineers (ASME).

Conversion of MIL-STD-100, however, was delayed by a number of events. First, a Process Action Team (PAT) was formed by the DoD to study the DoD acquisition process, especially regarding its use of military specifications and standards. The findings of the PAT were then published in a report titled "Blueprint for Change," and later implemented through a memorandum on June 29, 1994, by the honorable William J. Perry, Secretary of Defense.

Perry's memorandum sparked the creation of an industry review panel, chaired by Willis J. Willoughby, which recommended the cancellation of ten military standards, eventually to become known as the "Willoughby 10." Furthermore, the review panel cited MIL-STD-100 as having an upward "cost driver" impact when invoked for the contractual delivery of drawings. It appeared the necessity of a separate set of DoD requirements for drawing practices, in the form of a military standard, was in question.

MIL-STD-100 was then scrutinized by the Defense Standards Improvement Council (DSIC), which conducted a hearing on the standard in terms of both content and application. The DSIC decided that conversion of MIL-STD-100 to commercial standards was indeed necessary, and accordingly that the basic approach initiated by the DRPRO in 1993 was the correct one. However by July 1996 there was wide consensus within the DSIC that the consequences of totally replacing MIL-STD-100 far outweighed the benefits. The potential for erroneous entries on drawings and for steadily inflating revision costs was unacceptable. Ultimately, an alternative was agreed upon whereby a commercial standard, in the form of ASME Y14.100M, would be available for use by industry and DoD in general. It should be noted that ASME Y14.100M is not a standalone document for the purpose of addressing basic practices. For commercial applications, an accurate perception of engineering drawing practices may be derived by treating ASME Y14.100M, ASME Y14.24M, ASME Y14.34M, and ASME Y14.35M as a composite set. Depending on the drawing maintenance or contractual intent, DoD users may find it necessary to combine these four ASME standards.

In accordance with Memo 98-2 and using MIL-DTL-31000 for preparing contractual requirements established by Technical Data Package (TDP), the use of performance specifications (MIL-PRF-XXX) and commercial standards are preferred over military standards.

2.0 Composite Set of Government/DoD Specifications

In accordance with Acquisition Reform Policy Memo 98-2 and using MIL-DTL-31000 for preparing contractual requirements established by Technical Data Packages (TDP), the following standards form the basis for engineering drawing practices:

- **ASME Y14.100–2004, Engineering Drawing Practices** (replaces ASME Y14.100M–2000, ASME Y14.100M-1998, and MIL-STD-100G)
- **ASME Y14.24, Types and Applications of Engineering Drawings** (Replaces MIL-STD-100G, Chapter 200)
- **ASME Y14.34M, Associated Lists** (Replaces MIL-STD-100G, Chapter 700)

- **ASME Y14.35, Revision of Engineering Drawings and Associated Lists** (Replaces MIL-STD-100G, Chapter 600)

Selection of the TDP elements must be based on the Government's needs for technical data required to support the acquisition and life cycle support strategies for the product being documented. The Government's need for technical data varies greatly from program to program. It may range from conceptual design data for concept evaluation to a complete set of detailed design data for re-procurement of items essentially identical to the original item.

3.0 Applicable Sections

3.1 Engineering Drawing Practices, Commercial (Not requiring a Government Waivers) - See Section 1.4.1.

3.2 Engineering Drawing Practices, Non- Commercial (Requiring a Government Waivers) - See Section 1.4.2.