

Title: Q.E.D. Systems' Response to DFARS Case 2004-D011

Event: Federal Register / Vol. 70, No. 76 / Thursday, April 21, 2005 / Proposed Rules, Pages 20726 – 20729, as corrected in Federal Register / Vol. 70, No. 80 / Wednesday, April 27, 2005 / Proposed Rules, Page 21729

Issues:

1. The definitions of the terms “case” and “palletized unit load” and their use throughout the rule.
2. The impact of providing electronic advance shipment notice information.
3. Whether small business considerations have been fully addressed in the regulatory flexibility analysis.
4. Scientific, industry, or manufacturing based evidence from changes or additions to packaging or package systems in order to assess the possible impact, if any, on the environment and materials recycling, including corrugated, metal, and plastic shipping containers and pallets.
5. What are the options for minimizing and mitigating the impacts on the materials recycling process from the use of RFID tags on shipping containers and pallets?

Recommendations: 2. The impact of providing electronic advance shipment notice information.

It is the recommendation of the Q.E.D. Systems that DoD re-examine its use of the Ship Notice/Manifest (ASC X12 856 Transaction Set). There are numerous inconsistencies between the use within DoD and the primary users of EPC.

A. Background

In addition, contractors must send an advance shipment notice in accordance with the procedures at <http://www.dodrfid.org/asn.htm>, to provide the association between the unique identification encoded on the passive tag(s) and the product information at the applicable case and palletized unit load levels.

B. Regulatory Flexibility Act

¶2 “The proposed rule will also require contractors to provide an electronic advance shipment notice in accordance with the procedures at <http://www.dodrfid.org/asn.htm>, to associate RFID tag data with the corresponding shipment.

252.211–7XXX Radio Frequency Identification.

As prescribed in 211.275–3, use the following clause:

Radio Frequency Identification (XXX 2005)

(e) *Receiving report.* The Contractor shall electronically submit advance shipment notice(s) with the RFID tag identification (specified in paragraph (d) of this clause) in advance of the shipment

in accordance with the procedures at <http://www.dodrfid.org/asn.htm>.

The specifics for the Advance Shipment Notice (this terminology is incorrect. The correct title for the X12 856 transaction set is “Ship Notice/Manifest.”

The specific reference from the web page about is 856_Pack_Update_WAWF_4010_EDI_Detail.doc, Version 3.0.7, March 2005

Contemporary versions of X12 (5020) and many previous versions declared REF01 (Data element 128) as having a minimum size of two characters and a maximum size of 3. As far back as X12 (4010) we find the value “TPN” to indicate “transponder number.”

Wal-Mart Implementation Guidelines for EDI state,

“Future documents that will support EPC information

- 856 – Ship Notice”

The 856 transaction set has two primary schemes, one which employs the CLD/REF loop (Loop ID – CLD) and the other employs a Marks and Numbers segment (MAN). The retail segment (the model for EPC) employs the MAN segments. Organizations shipping to retail distributors and sales points will need to employ a different scheme for DoD than for retailers

DoD is “way ahead of the curve” with regards to EPC implementation and then tying that implementation to EDI. There are numerous issues that are currently unresolved (as mentioned above) and DoD must be prepared to re-implement its EPC / EDI usage once the details have been sorted out by industry.

Does DoD intend only to permit Version 4010 of the ASC X12 standards? Will future implementations require Small to Medium Enterprises (SMEs) to then redesign their systems? A Ship Notice/Manifest transaction provides no benefit for the SME. DoD should identify the frequency of anticipated changes in these rules.

Recommendations:

Additional – The requirement of EPC tags in general and Class 0 and 1, specifically.

The DoD requirement for Generation 2 passive RFID tags preceded the submission by EPCglobal of the Generation 2 specification to ISO for standardization. In the interest of RFID harmonization with international allies, tag compliance with JTC1 ISO/IEC 18000-6c should supersede Generation 2 compliance once ISO 18000-6c is issued.

252.211–7XXX Radio Frequency Identification.

As prescribed in 211.275–3, use the following clause:

Radio Frequency Identification (XXX 2005)

2(d) *Data syntax and standards.* The Contractor shall use one or more of the following data constructs, depending upon the type of passive RFID tag being used in accordance with the tag construct details located at <http://www.dodrfid.org/tagdata.htm> (version in effect as of the date of the solicitation):

2(a) *Definitions*

Passive RFID tag means a tag that reflects energy from the reader/interrogator or that receives and temporarily stores a small amount of energy from the reader/interrogator signal in order to generate the tag response. Acceptable tags are—

- (1) EPC Class 0 passive RFID tags that meet the EPCglobal Class 0 specification;
- (2) EPC Class 1 passive RFID tags that meet the EPCglobal Class 1 specification; and
- (3) EPC UHF Generation 2 passive RFID tags that meet the EPCglobal UHF Generation 2 specification.

It is not believed that the tags being sold to DoD meet the requirements of the EPC Class 0 or Class 1 specifications and that it is a serious error to say that they do. The only EPC tag having a viable specification is that of UHF Generation 2. Properly, DoD should be referencing ISO standards, in the case of RFID ISO/IEC 18000; and for passive technology operating in the 860 – 960 MHz range: ISO/IEC 18000, Part 6c. Such reference would be internationally viable, would include the UHF Gen2 standard currently referenced and would provide room for growth. Not referencing ISO standards is a serious mistake. If ISO standards are not going to be referenced, only UHFGen2 tags should be called out.

Sincerely,



Craig K. Harmon