

**DEPARTMENT OF DEFENSE****48 CFR Parts 211, 212, and 252****[DFARS Case 2004–D011]****Defense Federal Acquisition Regulation Supplement; Radio Frequency Identification****AGENCY:** Department of Defense (DoD).**ACTION:** Final rule.

**SUMMARY:** DoD has issued a final rule amending the Defense Federal Acquisition Regulation Supplement (DFARS) to add policy pertaining to package marking with passive radio frequency identification (RFID) tags. The rule requires contractors to affix passive RFID tags at the case and palletized unit load levels when shipping packaged operational rations, clothing, individual equipment, tools, personal demand items, or weapon system repair parts, to the Defense Distribution Depot in Susquehanna, PA, or the Defense Distribution Depot in San Joaquin, CA.

**EFFECTIVE DATE:** November 14, 2005.

**FOR FURTHER INFORMATION CONTACT:** Ms. Michele Peterson, Defense Acquisition Regulations Council, OUSD(AT&L)DPAP(DAR), IMD 3C132, 3062 Defense Pentagon, Washington, DC 20301–3062. Telephone (703) 602–0311; facsimile (703) 602–0350. Please cite DFARS Case 2004–D011.

**SUPPLEMENTARY INFORMATION:****A. Background**

This final rule contains requirements for contractors to affix passive RFID tags at the case and palletized unit load levels. The rule requires that specified commodities delivered to specified DoD locations be tagged with a readable passive RFID tag. The data encoding schemes that contractors may write to the tags are identified in the contract clause and are also located at <http://www.dodrfid.org/tagdata.htm>. 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.

DoD published a proposed rule at 70 FR 20726 on April 21, 2005, and a correction to that rule at 70 FR 21729 on April 27, 2005. Thirty-three sources submitted comments on the proposed rule. As a result of these comments, the final rule contains additional changes that clarify the shipment locations, the

definitions of “exterior container” and “palletized unit load,” and the requirements for ensuring that data encoded on each RFID tag are unique. An analysis of the comments is provided below.

1. *Comment:* Electronic submission of the advance shipment notice (ASN) SHALL be via Wide Area Work Flow (WAWF) per the DoD Suppliers Passive Information Guide, Version 7.0. Other means of ASN is not acceptable. We have been harping our contractors to get on board with WAWF. Version 3.0.7 contains a tab for RFID data entry.

*DoD Response:* The current system for ASN submittal is WAWF.

2. *Comment:* Classes of supply do NOT address raw materials, *i.e.* steel rods/bars/non-machined casings, etc., that are packed into shipping containers. Reusable containers, *i.e.*, Hardigg Containers, are not addressed. What do contractors do when they have a contract for raw steel bars or containers that are packed in wood boxes or fiberboard containers for shipment?

*DoD Response:* Classes of supply definitions are normally used in support of warfighter requirements, since these are the types of materiel items normally ordered, stocked, and issued from DoD wholesale supply activities to support warfighter needs. If there is a future requirement for the tagging of raw materials for shipment to DoD industrial activities, these requirements will be identified in future DoD policy and DFARS issuances. Reusable containers such as Hardigg containers are individual items when requisitioned—as such they can be tagged if these items are components of DoD material such as tool sets. As the technology matures and the DoD implementation progresses, future DoD issuances may contain a requirement for tagging at individual item level.

3. *Comment:* The DFARS states contractors MAY only need to change their printer because MSL software is available that will print the MSL with embedded RFID. This is fine for a shipping container or palletized unit load, but what about the exterior containers on the pallet? They need the passive tag, as well as the pallet.

*DoD Response:* The exterior containers do have to be affixed with passive RFID tags, but an MSL may or may not be required and should be affixed per the instructions contained in MIL–STD–129. A supplier could use the same printer that prints their MSL tags to meet this requirement or affix a blank label or an RFID tag itself.

4. *Comment:* Small businesses will go out of business. There are many

contractors, “10 percenters” as we call them, which work out of their homes. The cost of implementing RFID will put them out. Material costs to the Government will skyrocket. How are we addressing small businesses?

*DoD Response:* DoD is implementing this through new contracts thus allowing for the supplier to include the cost of compliance in the contract, recognizing there may be a temporary cost burden until contract payment. With respect to training, DoD has partnered with the Procurement Technical Assistance Centers (PTAC) to provide training to DoD small businesses. There are a variety of compliance options, which range in cost. You may also use a 3rd party provider to meet the requirement. Please reference the Web site, <http://www.dodrfid.org>, for more information.

5. *Comment:* Need to point out that to use EPC data construct will require the contractor to pay a royalty/membership fee to EPC, whereas using DoD data construct is free.

*DoD Response:* Noted.

6. *Comment:* Contractors electing to use a packaging house still need an interrogator to verify to the QAR the data is present. In addition, contractors using a packaging house shall inform the packager of the data to be encoded in the tags.

*DoD Response:* Suppliers can outsource the function of tag verification to the tag manufacturer; however, the requirement in the contract is still with the supplier. Suppliers who purchase pre-encoded tags do need to know the hexadecimal representation of the RFID tag number in order to transmit it to WAWF. This information will most often need to be printed in human-readable format on the tag or can be captured through an RFID reader or bar code scanner (if a bar code is present).

7. *Comment:* Is the area of safety and homeland security addressed regarding the use of RFID tags?

*DoD Response:* The passive RFID technology that DoD is acquiring is commercially available technology and requires FCC approval for production, sale, and use in the United States when used in accordance with manufacturer's instructions. The DoD plans to conduct appropriate testing to ensure that the technology is safe for use around munitions and fuel prior to use around these materials. The DoD is working closely with the DHS to ensure that the technology and standards are compatible and adaptable.

8. *Comment:* Can the labels be tracked by the enemy or an outside concerned source?

*DoD Response:* Any commercially available EPC compatible reader can read the current version of the encoding on the current passive EPC compatible RFID tag. It is important to note that the only information on the tag is a purely binary serialization of the tag that has no intelligence. The intelligence (data) relating to the contents of a shipment is in the DoD logistics information systems behind the DoD firewall. As RFID security risks are identified, DoD will continue to review these issues from both an information assurance and operational security standpoint.

9. *Comment:* Has there been a cost study done on the implementation of this requirement? And if so who bears the cost? Future contract winners, Government, etc?

*DoD Response:* The DoD has completed a regulatory flexibility analysis that is available for review at <http://www.dodrfid.org/regflex.htm>. DoD is implementing this requirement in new contracts according to the Supplier Implementation Guide. This will allow suppliers to negotiate the cost of compliance into the new contract.

10. *Comment:* Would it not be better to limit the use to only commercial application items?

*DoD Response:* One of the DoD goals in adopting this technology is to achieve a higher level of interoperability with our commercial partners in the supply chain. This technology is simply a faster, better way to acquire data for logistics and financial systems. RFID will be a benefit for all items DoD manages, and the utilization of RFID will facilitate accurate, hands-free data capture, in support of business processes in an integrated DoD supply chain enterprise as an integral part of a comprehensive suite of Automatic Identification Technology (AIT).

11. *Comment:* I find some of your definitions to be confusing.

*DoD Response:* Noted. Please see comments 12–17 for further clarification of your questions.

12. *Comment:* Delete the term “Case” and substitute “Exterior Pack: Package or container containing a single item or a number of unit packs or intermediate packs ready for shipment and storage.”

*DoD Response:* The term “Case” is used to provide a common term of reference for both commercial and DoD activities.

13. *Comment:* You can delete “Exterior container” if you use the STANAG 4279 definition of: “Exterior Pack: Package or container containing a single item or a number of unit packs or intermediate packs ready for shipment and storage.” This is also referred to as

the NATO Glossary of Packaging Terms and Definitions, AAP–23 (Edition 2).

*DoD Response:* The definition used in the DFARS rule is as extracted verbatim from MIL–STD–129.

14. *Comment:* If not, I think you need to change the last sentence of the Exterior Container definition to read: “An exterior container may or may not be used as a shipping container.” This is the correct term used in MIL–STD–129.

*DoD Response:* The DFARS rule definition has been changed to read as defined in MIL–STD–129.

15. *Comment:* Delete the last sentence of the definition of Palletized Unit Load: “A palletized load is not considered to be a shipping container.” The respondent does not see any reason for this statement and it is not part of the definition.

*DoD Response:* The definition used in the DFARS rule is as extracted verbatim from MIL–STD–129.

16. *Comment:* The shipping container is separately defined and for all practical purposes is the same thing as the exterior container. I think you confuse things by saying it is defined as an exterior container. The STANAG defines “Shipping container/A container which meets minimum carrier regulations and is of sufficient strength by reason of material, design, and construction to be shipped safely without further packing.” I think this is the term you are looking for and would delete case and exterior pack/exterior container because it is too confusing.

*DoD Response:* The definition used in the DFARS rule is as extracted verbatim from MIL–STD–129.

17. *Comment:* As I understand what you are looking for you want the following: a. One passive RFID tag on either the palletized unit load or on the shipping container b. on all shipments to Susquehanna, PA and/or San Joaquin, CA. The way you have it written it could be for depot storage or for export shipment out of the CCP or for local consumption in a depot repair program. If that is the intent, I think you should also include Red River Army Depot (RRAD) because TACOM has many items that we also ship to RRAD as one of our three primary depots for storage. However, if the intent was to speed customer delivery times in the E2E distribution thru the Container Consolidation Point, then I think you need to be clearer in your identification of the “ship to” address.

*DoD Response:* The initial intent was to have selected classes/types of material tagged for shipment to the major DLA receiving points at San Joaquin and Susquehanna, since these

two locations receive the majority of the material inbound to the DLA. As the phased DoD implementation plan for passive RFID continues, we will expand both the types of material as well as the specific DoD receiving activities for RFID tagged material—to include industrial/depot activities, like Red River Army Depot. The specific “ship to” addresses have been posted to the Web site, <http://www.dodrfid.org>.

18. *Comment:* A respondent suggested the use of an RFID application to track warranty and other product information pertaining to purchases made by DoD.

*DoD Response:* The current focus of DoD’s RFID program is on the use of RFID within the supply chain. Future uses of this technology will continue to be explored.

19. *Comment:* During an RFID brief, a question arose. Some defense contractors “ship in place” meaning their invoice is paid but the material remains at their facility until the customer requests it. Since the invoice is signed by an authorized Government Representative, *i.e.* QAR, the material becomes Government property. When the customer requests the material, a DD Form 1149 is processed and material shipped to the using activity. Question: At what point will RFID tags be placed on the shipping containers and/or pallets? Transmission of the data via WAWF will do no good as the material has not left the facility and contractors expect to be paid. Will the DFARS address “Ship In Place” shipments?

*DoD Response:* In this situation, WAWF will allow for two transactions. The initial WAWF transaction for “in-place” receipt/acceptance of the material (invoice signature by the QAR) and subsequent payment via DFAS will not require the specific RFID information. The appropriate RFID tag should be encoded and placed on the shipment (case and/or palletized unit load) when the shipment is prepared for movement to the ultimate consignee. When the material is shipped to a DoD activity, the RFID tag is put on the second transaction (Advance Shipment Notice) to facilitate receipt and input to WAWF and to close out documents in the appropriate system. These specifics should be detailed in the supplier contract.

20. *Comment:* Seeking clarification of the following: Page 20728 of the **Federal Register**/Vol. 70, No. 76/Thursday, April 21, 2005/Proposed Rules PART 252.211–7XXX in middle of the right hand column on this page the last sentence under “Exterior container”. It states, “An exterior container may not be used as a shipping container.” Please advise what is the intent of this

sentence. If a wood crate happens to be the exterior container and it holds both unit and intermediate containers, why can it not be classified as an exterior container?

*DoD Response:* The DFARS rule will be clarified and the sentence will be changed to read "An exterior container may or may not be used as a shipping container," as per MIL-STD-129.

21. *Comment:* Seeking clarification of the following: Page 20728 of the **Federal Register**/Vol. 70, No. 76/Thursday, April 21, 2005/Proposed Rules PART 252.211-7XXX. In the next paragraph, "Palletized unit load" states, "A palletized load is not considered to be a shipping container". Why is it not to be considered a shipping container? I realize it may not be enclosed, and not possibly suitable for stacking, however it is still the "container" on which the items are being shipped.

*DoD Response:* The definition used in the DFARS rule is as extracted verbatim from MIL-STD-129. A palletized unit load can be shipped as is, but is not considered a "shipping container." in accordance with definitions in MIL-STD-129. Palletized unit load has its own definition.

22. *Comment:* Seeking clarification of the following: Page 20728 of the **Federal Register**/Vol. 70, No. 76/Thursday, April 21, 2005/Proposed Rules PART 252.211-7XXX. The next paragraph starting with, "Passive RFID tag" indicates that (1) EPC Class 0 passive RFID tags that meet the EPCglobal Class 0 specification are acceptable. I understood that an amendment was being issued that no Class 0 passive RFID tags were going to be acceptable for military shipments. Please advise.

*DoD Response:* DoD allows the use of either EPC-compliant Class 0 or Class 1 passive RFID tags.

23. *Comment:* Seeking clarification of the following: Page 20729 of the **Federal Register**/Vol. 70, No. 76/Thursday, April 21, 2005/Proposed Rules, second column, eighth line down, the word "paragraph" should have the actual paragraph reference placed beside it. Clarification of these concerns would be appreciated.

*DoD Response:* This reference will be inserted upon completion of the final rule.

24. *Comment:* The contract clause (252.211-7XXX) requires in para. (c)(2) that each tag is readable \* \* \* Please clarify what this means because there are conflicting understanding being presented to the vendors. Some government presenters are saying that most small businesses will only need to use approved labels to place on containers to comply. Others are saying

that this requires a business to invest in expensive systems to meet this requirement (min. cost is \$25,000). This is a significant issue for small business. If the latter is what is meant then not only the DoD, but Federal Agencies will lose most of the small businesses because this is a sizable investment for limited application and another reason not to do business with the Government.

*DoD Response:* The tag has to be readable by an RFID reader at the point it is shipped to the DoD. This does not require a \$25,000 investment. A supplier can buy an RFID reader, for approximately \$2,000, which verifies that the tag can be read. If a supplier is using an RFID-enabled printer, the printer will verify that the tag can be read. If a supplier buys pre-encoded tags and has no way to verify the tag readability at the point of shipment, they need to work with the tag manufacturer to ensure that the tags can be read. As for investments for small business, the DoD will negotiate these costs with suppliers at the time of contract.

25. *Comment:* Also, reference is made to two consolidation points that require RFID tags. Are these locations also known as Tobyhanna, PA, and Tracey, CA? If so, then this needs to be clarified because many government vendors do not associate the two as being the same.

*DoD Response:* The Defense Distribution Center Susquehanna, PA (DDSP) is not the same as Tobyhanna. The Defense Distribution Center San Joaquin, CA (DDJC) is located in Tracy, CA, but there are several facilities in Tracy. The specific shipping locations for this requirement are identified at the Web site, <http://www.dodrfid.org>.

26. *Comment:* A respondent commented on the potential use of "The AIM RFID Mark™!" on material that is tagged with an RFID tag to provide a visual indicator of RFID enabled labels.

*DoD Response:* The current version of the MIL-STD-129 does not require that the RFID tag be integrated with either a commercial or Military Shipping Label (MSL), but indicates in paragraph 4.9.2 that: "The passive RFID tag may be integrated with the military or commercial shipping label (RFID-enabled address label) or they may be placed in separate locations on the shipment." As the DoD RFID initiative progresses and additional suppliers ship tagged material to the DoD receiving points, the Department will work with organizations such as EPCglobal and AIM to determine the most suitable marking requirement to indicate RFID enabled labels—this requirement will then be included in a future update of the MIL-STD-129.

27. *Comment:* A respondent commented on the process of reconditioning shipping containers and reusing them within the supply chain before the shipping container is sent for recycling as scrap. There is a concern that RFID tags attached to these containers would not survive the reconditioning process and may litter the drum lines, conveyers, furnaces, paint booths, and wash basins. They could also end up in wastewater discharged to public sewer systems, or in solid waste streams sent to a municipal landfill.

*DoD Response:* The DoD makes every effort to ensure that materials and appropriate types of packaging are reconditioned and re-used when and where possible prior to recycling and disposal of these materials and packaging when they are no longer economical to recondition or repair for continued use. The DFARS rule does not require RFID tagging on the types of commodities and materials that would normally be shipped or delivered in fiber/plastic/metal drums or intermediate bulk containers (IBCs). As the DoD RFID initiative expands to potentially include these types of materials and associated shipping containers, future updates to the DFARS may include requirements such as appropriate directions for reconditioning, re-use, recycling, and disposal of packaging and containers.

28. *Comment:* There appears to be a major conflict between DoD's proposed use of the advance shipping notice and how the Defense Commissary Agency (DeCA) mandates the use of the Advance Shipping Notice. Currently DeCA requires all shipments under a Frequent Delivery Contract to have an ASN provided with specific data fields which is used as a receiving document. The DeCA ASN does not require nor accept a price because the third party doing the delivery each day does not have access to the price the supplier is charging. It appears DoD and DeCA are using two different types of contracts to obtain supplies. DoD is basing their RFID program on supporting a supply depot with a price that calls for a specific number of units to be delivered at a specific time. DeCA has a multiple delivery order with the quantities based on customer demand with deliveries to be made daily. The regulation and DoD standard for RFID require an ASN to be sent to DoD. Right now an ASN is sent to DeCA that serves a multiple of functions and gives the user all the information they need to receive the product and reconcile the delivery. The DoD RFID initiative is adding unnecessary workload to industry

because they are also asking for an ASN (with different information) that doesn't tie into DeCA's system. This means two ASNs would have to be sent, which seems an unnecessary burden on industry and was not included in the DoD's calculations to determine the cost to small business. The way the regulation is written it will be almost impossible to do business with DeCA and still meet the DoD requirements. It is estimated that it will increase the cost of goods to DeCA in the range of 15–18% providing we can have more time to implement RFID. If we are held to the DoD January 2007 mandate, we expect prices would increase in the 25–30% range because we would be using a third party to do the RFID tags. We believe that brand name items are quite different than the "specification" products being purchased for the depots. We feel RFID tags for brand name items for military resale should not be given an exemption until 2010 when RFID tags should be commonplace. It doesn't make a lot of sense why DeCA's customers, who are the ones paying for the items, should be forced to pay for technology that is still in the very early stages of development.

*DoD Response:* The requirements for DeCA's internal implementation are currently under review and are not within the scope of the current DFARS rule.

29. *Comment:* Thank you for the opportunity to comment upon the DEPARTMENT OF DEFENSE Defense Federal Acquisition Regulation Supplement; Radio Frequency Identification. There are a number of general and specific comments regarding the attached.

*DoD Response:* See comment numbers 30–38 for clarification.

30. *Comment:* It would be useful to clarify the chronological sequence of the several E publications on RFID published by the DoD. The attachment forwarded under cover of the Reference does not appear to note or recognize previous publications. In particular, the defining document must remain The Under Secretary of Defense's Memorandum dated 30 Jul 2004 and the associated Business Rule of the same date. These increasingly are difficult to align and reconcile with the DoD RFID Home Page and the Supplier Implementation Plan and the Suppliers' Passive RFID Info Guide of Aug 31 2004.

*DoD Response:* Documents located at <http://www.dodrfid.org> are supplemental to and supportive of the DoD RFID policy released on 30 Jul 2004.

31. *Comment:* There is a need to clarify the linkage between the DFARS

and the DoD policy. There needs to be a clearly articulated account of how amendment of the former document will be transferred to the latter.

*DoD Response:* The DFARS rule will serve as the standard contract language for incorporating passive RFID requirements in accordance with the DoD RFID policy.

32. *Comment:* To provide transparency, it is requested that a reference document of those companies that contributed to the document and whether their representations have been actioned or not is required. There is a concern that many RR comments of the related issue of UID DFAR and UID Policy have been received or actioned by the appropriate desk officers for staffing comments. The proposed schedule of staffing events would also be helpful to keep all respondents aware of the forthcoming critical milestones.

*DoD Response:* All comments submitted in response to this DFARS rule are taken into careful consideration, actioned and responded to appropriately by the appropriate offices. All comments and Departmental responses will be included with the final publication of the DFARS rule in the **Federal Register**.

33. *Comment:* It is suggested that palletized loads should be differentiated between air pallets and surface palletized loads, terms used by the military customer.

*DoD Response:* An "air pallet" is normally referred to as a "463L" or "463L System" pallet and does not require the application of a passive RFID tag. 463L pallets require the use of active RFID tags per the DoD RFID Policy "the use of which is not the subject of this DFARS rule." "Surface palletized loads" that you note are in fact covered by the MIL-STD-129 definition for palletized unit load as identified in the current rule as: "Palletized unit load means a MIL-STD-129 defined quantity of items, packed or unpacked, arranged on a pallet in a specified manner and secured, strapped, or fastened on the pallet so that the whole palletized load is handled as a single unit. A palletized load is not considered to be a shipping container."

34. *Comment:* Please confirm within the DFARS that the financial thresholds are in place or are not applicable, as seen with DoD UID policy.

*DoD Response:* The UID Financial thresholds are not applicable to the RFID policy. Therefore, this DFARS rule is purposefully silent on this issue to avoid confusion.

35. *Comment:* It is requested that a clause is inserted that reads: "DoD

recognizes and accepts that Suppliers' RFID Implementation Costs will be regarded as allowable costs under the FAR".

*DoD Response:* No blanket statement will be added. These costs must be individually negotiated with the contracting officers to ensure only minimum costs needed to comply are allowable under the contract.

36. *Comment:* MIL-STD-129 is referred to several times throughout the DFARS. Given the amount of amendments, for clarity, the latest version should be included as a reference at the outset of the document.

*DoD Response:* The MIL-STD-129 is referenced elsewhere in the DFARS for the marking and labeling of shipments to and within the DoD. The current version of the MIL-STD-129 is available at [www.dodrfid.org](http://www.dodrfid.org).

37. *Comment:* Class IX definition has been altered and omits Weapon Systems? Is this correct as the previous definition of Weapons Systems and Repair parts and Components was more complete and informative. It should also be confirmed that complete assemblies and the breakdown modules and spare parts are included in this category.

*DoD Response:* The following definition used in the rule is a verbatim extract from the DoD 4140.1-R DoD Supply Chain Materiel Management Regulation of May 23, 2003.

"Class IX. Repair parts and components including kits, assemblies and subassemblies, reparable and consumable items required for maintenance support of all equipment, excluding medical-peculiar repair parts."

This definition includes complete assemblies (less major end items), breakdown modules, and spares.

38. *Comment:* The increase in RFID shipping destinations should be highlighted in that by 2006 there are 34 locations and by 1 Jan 2007 to all DoD locations.

*DoD Response:* The Supplier Implementation Plan for 2006 and 2007 are not within the scope of the current DFARS rule.

39. *Comment:* The respondent commented on the small number of examples that were referenced in the Regulatory Flexibility Analysis concerning the impact of RFID tags on the recycling industry as well as the fact there will be an impact on the recycling community whether or not DoD is involved.

*DoD Response:* As noted in the comment, at the time of publication of the Regulatory Flexibility Analysis, there was little discussion and testing being done in the recycling industry

concerning the impact of RFID. The document provided what little information was available. As the recycling community completes testing and publishes reports, DoD will review those publications and work to take the concerns into consideration as RFID technology expands within DoD. Additionally, it is important to note for the pallet industry that the RFID tags will be placed on the shrink wrap surrounding the palletized unit load and not attached directly to the pallet.

40. *Comment:* A respondent suggested that DoD make small businesses aware of its service to offer recycled RFID tags, which sell at a lower cost. The respondent also recommends that requirements be incorporated into the DFARS so that companies can reprogram salvaged RFID tags.

*DoD Response:* The DoD has not yet developed tag recycling plans or a validated procedure for offering recycled tags for purchase through the excess property disposal process.

41. *Comment:* A respondent has concerns over the ability of Materials Recovery Facilities to create a product to the specifications of the customer as the number of RFID tags increases. The respondent urges careful consideration of the results of a study being conducted in the paper industry.

*DoD Response:* The DoD will continue to monitor industry testing of recycling processes containing RFID tags or tag fragments. As the results of these tests become known, DoD RFID policy will be amended as required.

42. *Comment:* I believe the impact analysis completed by the Department of Defense understates the cost to industry to implement RFID. It appears the analysis only focused on shipments to DoD distribution centers and virtually ignored shipments made to the Defense Commissary Agency. Based on an average case cost of \$25, industry's annual cost for implementing RFID for DeCA could be in excess of \$100,000,000 for RFID tags alone. The indications are the cost for application and administration could equal the cost of the tag which could mean an annual reoccurring cost of \$200,000,000 per year to meet DoD's RFID mandate. We have been to a meeting held by DoD about RFID and there is a lot of expense setting up an RFID program. I realize DoD is pushing us to use third party providers to meet their deadlines but that just increases the cost for RFID even more and creates a substantial hardship on small business. Most of the small business people who I have talked with don't have any idea about the RFID mandate and don't have any plans to implement RFID technology into their

business until things become settled down and costs are more reasonable. The analysis done by DoD doesn't really address this issue and seemed to ignore the entire issue of how much it really costs to implement RFID for a small business. We all recognize RFID is going to become part of the normal business process just as UPC's and scannable bar codes did in years past. The problem is the Department of Defense is mandating technology that is still being developed and is going to take time to implement. If the mandate for RFID applies for every item DoD purchases, DoD's orders will have to be treated differently. This means DoD is going to pay a much higher price than anyone else. As a taxpayer, that does not make a lot of sense for brand name items sold to the commissary, especially since the cost is going to be passed on to our military people which means they will have to spend more money for food. Instead of mandating specific dates for brand name items that are sold commercially, why don't you revise the FAR to defer the implementation of RFID technology for brand name items until it is a common industry practice. Based on how long it took for UPC's and bar codes to be implemented, it might be quite a few more years before RFID is part of the common landscape. Establishing a mandate for brand name items just doesn't make sense. No other retailer, including Wal-Mart, has established a hard and fast mandate date for 100% compliance from every supplier. It seems to me you need to look at mainstreaming with the rest of industry so you don't have to pay a premium to get something we will be doing in time.

*DoD Response:* DoD is aware of the concerns of shipment requirements for DeCA and is currently reviewing the internal implementation plan for DeCA. In the regulatory flexibility analysis ([www.dodrfid.org/regflex.htm](http://www.dodrfid.org/regflex.htm)), DoD provided several options as well as estimated costs for small businesses to comply with the RFID policy. Additionally, DoD has been working with the Procurement Technical Assistance Centers (PTAC) to educate them on RFID technology and the RFID policy so that small businesses may seek assistance from them with regard to the RFID policy and compliance.

43. *Comment:* DoD wants to mandate RFID and the use of advance shipping notices. While this might make sense for "spec" items going to distribution centers, it doesn't make any sense for the products we sell to the commissary system. Why in the world does DoD want to include these type of products as part of their RFID mandate? Does it make good business sense when the

majority of retailers who are buying the same item are just now beginning to test RFID technology and it will be many, many years before they are even thinking about getting the key suppliers on the program. Products purchased for resale should be excluded from DoD's RFID mandate. We already are sending ASN's to the commissaries with more information than what DoD wants, the commissary system doesn't have anything in place right now to use the technology even if we put tags on the cases, and the military families are going to be paying a much higher price just so every item will have an RFID tag. Some of the items we sell to the commissary are sold as eaches, e.g., soft drinks and snacks. Based on the RFID mandate, each of these items would require an RFID tag which would be more than the cost of the product. Considering the fact the item is consumed within hours after purchase, if not on the way home, what is the benefit? More importantly, what person is going buy our products if the price everywhere else is half the price (because they don't have an RFID tag). I would like to suggest the following changes be considered: (1) Items purchased by the commissary and exchanges should be excluded from the RFID mandate in the FAR as you did for other types of products. (2) At the very minimum the date for implementing RFID technology for the commissary and exchanges should be consistent with all the other retailers which could be 2010 or beyond. (3) You revision the current provision so the contracting officer can exclude items based on the cost of the product. A 100% mandate for all items is going to be difficult. (4) If RFID is mandated for the commissary and exchanges, the advance shipping notice requirement be revised to allow the commissary and exchange to receive the ASN directly instead of going to DoD's network and the map for the ASN be determined by the commissary and exchange service.

*DoD Response:* The requirements for DeCA's internal implementation are currently under review and are not within the scope of the current DFARS rule.

44. *Comment:* Recommend the following clarifications on the case and pallet definitions: Case: A single package or container that contains a pre-determined quantity of a specific item or multiple items associated with an order packaged together. The RFID tag applied to the single unit will associate the EPC code to the list of items inside the case. Pallet: A carrier, skid or other portable platform that contains multiple cases that is distributed as a unit. The

RFID tag affixed to the pallet will associate the EPC code to the case RFID tags contained on the palletized unit.

*DoD Response:* The definition used in the DFARS rule is as extracted verbatim from MIL-STD-129.

45. *Comment:* The respondent expressed concern over the ability to meet the requirements of the ASN. Specifically the fact that the current system running within their company does not account for all of the data in the ASN nor is all of the ASN data RFID tag data, additionally the WAWF requires reporting of items at the catalog part number level where they may pick at the pickable level. Requests clarification to allow data submitted at the pickable level.

*DoD Response:* The benefit of an ASN lies in the positioning of shipment data into a receiving information system prior to the actual arrival of the corresponding shipment—thus providing the receiving organization with “actionable information” to make delivery changes or other key business decisions. The data contained on the ASN is necessary for processing in the DoD enterprise. Each catalog number (read as CLIN) will likely have more than one RFID tag associated with it and the quantity may differ from the order quantity. This is perfectly allowable for a CLIN to have multiple RFID tags within WAWF. The mapping calls for the tag to associate with that portion of the CLIN quantity shipped in the carton. For additional information and instruction of how to construct this transaction, visit <https://wawf.eb.mil> and contact DISA Customer Service.

46. *Comment:* The respondent comments that DoD orders are not received via EDI, which would make sending an EDI MIRR to DoD much easier. The respondent suggests converting order to EDI submissions only.

*DoD Response:* This rule does not identify the method for order transmission.

47. *Comment:* The respondent noted that in WAWF today an entire ASN MIRR will be rejected if any required field value is not what is expected. This rejection may prevent the ASN from being received prior to the receipt of material. The respondent suggests rejecting only the affected lines.

*DoD Response:* We acknowledge that this scenario could occur and we will work with the WAWF personnel to examine this issue.

48. *Comment:* The respondent commented that in some contracts DoD specifies the line numbers for vendor products, which in the creation of the ASN could be a problem because those

numbers are not the same as the vendors”. The respondent suggests the use of common line numbers that are designated by the vendor.

*DoD Response:* This is outside of the scope of the DoD RFID DFARS rule. However, CLINS are normally designated by the contracting agency at the time of contracting.

49. *Comment:* The respondent brings attention to the fact that not all pharmaceuticals are distributed directly from a manufacturer to the DoD; distribution may occur through a pharmaceutical distribution entity. With the addition of RFID technology, there may be a change in the distribution, forcing manufacturers to become enabled to send an ASN. It is suggested that more time is needed to research and clearly understand the content of the ASN requirements.

*DoD Response:* Pharmaceutical materials are not within the scope of this DFARS rule—thus providing more time to research and understand the ASN requirements.

50. *Comment:* The respondent commented that there is still a need to study the long-term effects of RF, specifically on medical products. The respondent proposes more guidance on the effects on medical products, environment, and other areas that use this technology, including the handling of this material in the supply chain.

*DoD Response:* Medical products are not within the scope of this DFARS rule. The DoD is working closely with and intends to follow the lead of the Food & Drug Administration (FDA) on the use of RFID on pharmaceutical items—particularly biologics and medical items.

51. *Comment:* The respondent recommended providing guidance on the ability and method to recycle RFID tags.

*DoD Response:* The DoD would handle packaging and pallet material containing RFID tags using similar procedures as are currently used. Additional analysis is continuing in order to review the impacts of RFID tag materials in the various recycling waste streams.

52. *Comment:* Readability distance may vary based on equipment used, type of material and other factors that affect RF. MIL-STD-129 has defined requirements for the placement of tags on the pallet and case. This requirement may not be met for certain types of materials, liquids, metals, etc. We recommend the DoD make allowances for tag placement that best suits the material being tagged. MIL-STD-129 also states a requirement for the tag to be readable at the time of shipment.

Guidance is needed if the tag is damaged in transit or just simply not readable at the time of receipt.

*DoD Response:* As the implementation of the DoD RFID program continues, the need for inclusion of these requirements in the MIL-STD-129 will be reviewed.

53. *Comment:* The destruction of the RFID label after product delivery is a concern. Clear guidance has not been given on killing tags to ensure they do not resurface or are used to transport material other than the intended product. There needs to be assurance for when shipping materials are recycled or discarded, that previously assigned RFID information not be mistakenly re-used to identify another shipment of configuration of materials. An understanding of the DoD approach to handling passive RFID tags would be needed to assure systems support the intended post-use handling of the tags.

*DoD Response:* As the implementation of the DoD RFID program continues, additional procedures will be reviewed to preclude re-use of RFID tags and the potential for mis-labeling or false identification of materials.

54. *Comment:* It is not clearly outlined if (or which) pharmaceutical drug product(s) may require UID numbers affixed to the unit containers (bottles of tablets, solution, capsules, etc). The addition of an RFID tag on a small bottle containing serialized identifier would be difficult at a local distribution center and may need consideration at the manufacturer.

*DoD Response:* The requirement for RFID tagging of UID item packaging is a future requirement and not included in the scope of this DFARS rule.

55. *Comment:* Clear understanding of pharmaceutical product flow from the product manufacturer, to an authorized pharmaceutical distribution center, and finally to a DoD depot or warehouse must be considered in order to manage the impact of RFID tagging of cases and pallets when product is not directly shipped to DoD and manufacturers regarding RFID tagging needs. The responsibility of providing ASN's and case/pallet RFID tags would reside with the pharmaceutical distribution entity. Original packaging of cases and pallets from the manufacturer may change at the DC since these deliveries are not dedicated for DoD orders but are stocking orders for multiple customers.

*DoD Response:* Noted. The responsibility for providing case and pallet RFID tags in addition to the correct ASN resides with the contract holder.

56. *Comment:* Very limited guidance has been made available regarding the impact analysis requirements for pharmaceutical and medical materials (products). It is currently understood from FDA guidance that biological pharmaceutical materials are not to be included in RFID pilot studies until further regulatory review is completed and further guidance is provided. Would the DoD guidance provide similar concerns?

*DoD Response:* Pharmaceuticals are not included within the scope of the current DFARS rule. However, DoD is working closely with the FDA on the future use of RFID on pharmaceutical items—particularly biologics and medical items.

57. *Comment:* A respondent commented on the need for DoD to only adopt a RFID-use mandate if RFID technologies will not have a negative impact on recycling for any container, package, or pallet producer or any industry utilizing recycled containers or pallets to produce other products. Additionally, this respondent urges the Department to carefully analyze the use of RFID tags for each type of container under consideration.

*DoD Response:* As the DoD RFID effort progresses, the Department will remain cognizant of this and other industry association's concerns surrounding the use of RFID on particular materials used in shipping items throughout the supply chain. Additional analysis is continuing in order to review the impacts of RFID tag materials in the various recycling waste streams.

58. *Comment:* The 30 Jul 2004 OUSD(AT&L) memo "Radio Frequency Identification (RFID) Policy", discussed over-arching DoD-wide implementation of RFID into the supply chain system. When the proposed rule was published in April, it confused program managers and contracting functionals because the proposed DFARS changes only covered limited types of commodities being shipped to only two depots. We thought the DFARS proposed rule would take into account the more expansive application of RFID within DoD as expressed in the various RFID policy memos. We can only assume the proposed rule represents just the first phase of RFID application, and subsequent DFARS changes will expand RFID application.

*DoD Response:* This DFARS rule covers the commodities and locations for 2005, additional DFARS updates/rules will be used to provide the locations and commodities for 2006 and 2007.

59. *Comment:* The respondent has followed the development and testing of RFID tags for the typical "supermarket" food products. It would seem to them, and they believe this is a view shared by most in the wholesale food industry, that feasibility and affordability of RFID tags for the food industry is at least 3 years down the road. Even Wal Mart seems to have backed down with their RFID initiative. It is important to recognize that profit margins in the food business are measured in pennies. This is a factor that puts great emphasis on the cost of RFID tags. RFID makes a great deal of sense for highly sensitive or costly items that the DoD or other government agencies are attempting to control. It would seem that tracking cases of peas, corn, cereal, etc., would be rather low on the priority list vs. other costly or sensitive items. The respondent strongly recommends consideration that application of RFID tags to food related products be deferred until technological challenges are resolved and the cost of RFID tags become reasonable. Implementing requirements to support RFID tags at these early stages might result in limitations or elimination of the ability of small business to sell to the government—a result that would be contrary to federal procurement guidelines or could result in the need for notable cost increases for the food products supplied to the various government agencies.

*DoD Response:* Consumer products and typical "supermarket" food products are not included within the scope of the current DFARS rule. The DoD is reviewing future requirements for consumer products and typical "supermarket" food products for phasing into the DoD RFID implementation.

60. *Comment:* The respondent recommends that DoD reexamine 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 regard 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.

*DoD Response:* DoD follows Federal Implementation Conventions for all X12 transaction sets. In some cases, that may result in a different transaction set than the commercial transaction set, however we will continue to use the Federal Implementation Conventions for X12 transaction sets.

61. *Comment:* 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.

*DoD Response:* The DoD opted to embrace EPC specifications for Class 0 and Class 1 readers and tags in order to quickly adopt technology that enhances interoperability with our industry supplier base. At this time, DoD only accepts EPC compliant Class 0 and Class 1 tags. As the UHF Gen 2 specification is ratified and becomes part of the appropriate ISO standard, the DoD policy documentation will be updated to reflect this new standard.

62. *Comment:* The definitions of “palletized unit load” and “shipping containers” as indicated in the section 252.211-7XXX are acceptable according

to the practices in handling corrugated and solid board containers.

*DoD Response:* Noted.

63. *Comment:* Assessing the possible impact, if any, on the environment and materials recycling, including corrugated containers. The Fibre Box Association (FBA) has considered for some time the potential impact of the passive RFID tags and antenna in the recycling stream that would impact the manufacturing location where the recovered corrugated material is processed, as well as the characteristics in the product itself containing a high percentage of recycled fiber content. As RFID tags come into widespread use, either from DoD requirements or other commercial and industrial organizations, an increasing number of these devices will enter the recycling stream. Corrugated containers are recovered and recycled at a level above 70%, the highest recycling rate for a defined article and very much in competition with aluminum cans for the top spot. Two systems were assessed for environmental and product safety considerations based on FBA’s research of leading innovators and other analyses, identifying potential front-runners in the long term. The current RFID construction essentially consists of a small integrated circuit and an antenna that is either in foil form (copper) or printed with conductive silver ink. Thus the antennae are potential sources of metals that could be mobilized during the re-pulping, fiber treatment and manufacturing processes at the recycling mill. The impacts could be in different solid and aqueous releases from the mill, as well as the presence of these metals in the product itself. The FBA commissioned the technical arm of the forest and paper industry, the National Council for Air and Stream Improvement (NCASI), to perform a study to assess the potential impact of these two forerunner RFID antennas in the recycling stream. In the case of the foil antenna, the results of the study indicate the tag maintains its integrity in the re-pulping process due to the fact that this type of RFID tag is typically enclosed in a plastic laminate, which is then adhered to the container. The hydrapulper cleaning system separates these tags out at a 99%+ level. Such complete separation prevents any mobilization of the copper metal and allows the tags to be easily and safely disposed. The printed silver ink antenna is a more complex situation because it indeed mobilizes. In order to accurately ascertain the partition of silver among the different vectors—solid waste, effluent discharges and the product itself—a detailed trial was conducted in

a pilot paper machine and fiber cleaning system at Western Michigan University in Kalamazoo, Michigan. This study and the subsequent analysis of samples collected from the different vectors, as well as testing for movement potential of silver from the corrugated packaging into food, has been recently completed. The study results indicate the following:

- The silver had a high tendency to remain in the fiber substrate of the paperboard.
- Silver extractions of the finished pilot plant paperboard samples revealed a high resistance of the silver to movement outside the substrate.
- Silver concentration in effluent, solid waste and product streams are well below the identified regulatory thresholds.

*DoD Response:* DoD appreciates this valuable information with regard to the studies completed on recycling RFID tags on corrugated containers. DoD will continue to solicit and accept all research, studies, and analyses that document the impact of RFID tags to our environment and recycling industries worldwide.

64. *Comment:* It is the recommendation of the AIM RFID Experts Group (REG) that the definitions employed for common industry terms follow the definitions internationally accepted for those terms. There is incompatibility between the definition in the DFARS Case 2004-D011, MIL-STD-129P, and the intended use of RFID within DoD. What follows are the terms and definitions employed by the documents in question. 211.275-2 Policy. Radio frequency identification (RFID), in the form of a passive RFID tag, is required for individual cases and palletized unit loads. Palletized unit load means a MIL-STD-129 defined quantity of items, packed or unpacked, arranged on a pallet in a specified manner and secured, strapped, or fastened on the pallet so that the whole palletized load is handled as a single unit. A palletized load is not considered to be a shipping container. [DFARS Case 2004-D011, “As prescribed in 211.275-3, use the following clause:”] Case: It is either an exterior container within a palletized unit load or it is an individual shipping container. [MIL-STD-129P c3, definition 3.3.1] Palletized unit load: A quantity of items, packed or unpacked, arranged on a pallet in a specified manner and secured, strapped, or fastened on the pallet so that the whole palletized load is handled as a single unit. A palletized or skidded load is not considered to be a shipping container. A loaded 463L System pallet is not considered to be a palletized unit load. Refer to the

Defense Transportation Regulation, DoD 4500.9-R, Part II, Chapter 203 for marking of 463L System pallets. [MIL-STD-129P c3, definition 3.27] International standards: International standards exists for these and constituent terms. DoD claims to use commercial standards. The most pervasive commercial standards are those of ISO. The DFARS case (and MIL-STD-129) need to reference the terms as employed in ISO standards. Pallet: Rigid horizontal platform of minimum height, compatible with handling by pallet trucks and/or forklift trucks and other appropriate handling equipment, used as a base for assembling, stacking, storing, handling, transporting, or display of goods and loads [ISO DIS 455, Pallets for materials handling—Vocabulary, definition 2.1]; packaging (product) product made of any material of any nature to be used for the containment, protection, handling, delivery storage, transport and presentation of goods, from raw material to processed goods, from the producer to the user or consumer, including processor, assembler or other intermediary [ISO DIS 21067, Packaging—Vocabulary, definition 2.1.1]; transport packaging: Packaging (2.1.1) designed to contain one or more articles or packages or bulk material for the purposes of transport, handling and/or distribution [ISO DIS 21067, Packaging—Vocabulary, definition 2.2.4]; unit load/unitized load: Single item or assembly of items designed to enable these to be handled as a single entity [ISO DIS 21067, Packaging—Vocabulary, definition 2.3.18]; box: Packaging with rectangular or polygonal sides usually completely enclosing the contents. Note: The sides may contain apertures for handling or ventilation. [ISO DIS 21067, Packaging—Vocabulary, definition 2.3.7]; case: non-specific term for a transport packaging, often used to refer to a box [ISO DIS 21067, Packaging—Vocabulary, definition 2.3.9].

*DoD Response:* These recommendations will be reviewed for possible inclusion in a future update to the MIL-STD-129. The definitions will remain consistent with MIL-STD-129.

65. *Comment:* Evidence: The environmental impact of utilizing Passive RFID tags to track and identify DoD material is being assessed in the same order that RFID tags will appear in significant quantities on DoD material. Since the DoD Passive RFID Mandate (as well as private sector mandates) is first targeted to unit loads/pallets and cases, data accumulation and studies that need to occur have first focused on carton board and corrugate. 4.1 Corrugate

Evidence: Foil antenna made of Aluminum or Copper, irrespective of being on plastic substrate, will not taint the corrugate/carton board recycle stream. Because these tags remain intact, they are removed with staples, etc., in the first filtration after repulping with no carry over. The addition of RFID tags to the first repulping filtrate does not significantly alter the percentage constituent makeup of the first repulping filtrate, (10%). Present waste disposal for the first repulping filtrate is deemed acceptable in the future for the first repulping filtrate with RFID tags. Printed silver based antennas are undergoing pilot testing to insure no negative environmental impact occurs. There is some concern that residual silver may pass through. The underlying reason is that printed antennas do not have the same structural integrity to remain intact to allow simple filtration to be the means of removal. Since a significant portion of RFID tags are foil/plastic substrate based, the most conservative approach would be for DoD to utilize foil/plastic substrate based tags until completion of the printed antenna pilot tests. 4.2 Pallet Evidence: No studies have been initiated for environmental impact on pallets because a general assessment indicates no need due to the following: Pallets are either reused repeatedly for many turns with no subsequent environmental impact; Tags on pallets are reused or manually removed allowing the tags to be separated before disposal; Pallets are repaired and reused with no subsequent environmental impact from tags; Pallets are disposed of via grinding where antenna metal would constitute .4ppm. Final uses of ground pallets are fuel, mulch, and filler for plastic; Total pallet tags will be fewer than case tags by factors between 20 and 100.

*DoD Response:* DoD appreciates this valuable information and analysis concerning the recycling impacts of RFID tags on packaging materials. DoD will continue to solicit and accept all research, studies, and analyses that document the impact of RFID tags to our environment and recycling industries worldwide. As a note, the tags placed on pallets will be placed on the shrink wrap not directly applied to the pallet itself.

66. *Comment:* Reference AIM REF Term of Reference 5R (RFID and recycling); 5. Mitigating Action Plans: For Use Cases and waste streams that are several years from having large number of RFID tags involved, assessments are in different stages of completion. However, all should be finalized before RFID becomes

significant in each area. As well there are initiatives under way that take the introduction of RFID well beyond minimizing impact on existing processes to more net positive impacts. Both are outlined below: 5.1 Printed Silver Based Tags on Corrugate: The impact of introducing large numbers of printed silver based RFID tags into the corrugate/carton board recycle stream is in the final stages of study by the Fibre Box Association (FBA) and Confederation of European Paper Industries (CEPI), the U.S. and European trade associations respectively for the corrugate/carton board/paper sector. As well, several suppliers of silver based printing inks have studies underway. All those doing studies, ink suppliers, FBA, and CEPI plan to submit study results to OMB as soon as complete in the near future. 5.2 Existing Waste Streams: Impact data is not yet available for plastics, glass or metal. However, the same successful approach that is in final stages of completion for corrugate will be undertaken. The following have been engaged to provide guidelines for RFID use to minimize environmental impact:

Waste stream trade association guideline	Completion
Plastics Society of Plastic Engineers (SPE). Society of Plastics Industry (SPI). Glass Packaging Institute (GPI)	1st Qtr 07.
Steel TBD .....	1st Qtr 07. 4th Qtr 07.
Aluminum TBD .....	4th Qtr 07.

5.3 Reusable Assets: An EPC Global Work Group led by CHEP (a global pallet pool owner) is defining tag and data needs to ensure Reusable Assets are tagged with long life tags for both the Asset GRAI and the contents' EPC. Target completion for a standard is November 2005. 5.4 Tag Reuse: A mechanism to minimize the impact or RFID tags is Reuse. At least one commercial activity is underway to pilot and validate the technical and economic viability of Tag Reuse. ASADA will be running a pilot in conjunction with a recycle corrugate mill to validate the economics. Key to tag reuse is the tag issuing entity must use password alterable EPC numbering so the tag can be reused. Assuming technical and economic viability is validated in the pilot, tag reuse will be in place by Q2'06. 5.5 Recycle Process ID: AIM will petition ISO to reserve 8 bits in RFID tag protocols to carry EPA recognized processes for recycling. The ISO submission will be August 1, 2005. 5.6 Constituent Reduction: Constituent/Metal Antenna, Silicon IC, Substrate, Adhesives) Reduction for Passive RFID

Tags is the primary R&D focus of all RFID Tag Suppliers. The underlying economic requirement for massive adoption of RFID in the private sector is tag cost reduction. Tag cost is based almost entirely on constituent cost with the cost of the main tag constituents essentially being equivalent. Therefore, tag constituent contents will drop proportionally with price, *i.e.*, proportional in the drop from mid twenty cents to sub ten cents, over the next 5 years. Discussion: Given the above evidence and action plans to create additional evidence, the net environmental result of mandated RFID adoption is presented below against the long established strategy of environmental responsibility—Recycle, Reuse, Reduce: Recycle: Existing waste stream recycling at a minimum will be unaffected. More likely waste stream recycling will have significantly improved efficiency because mixed stream solid waste separation will become automated. Valuable components of RFID tags will be retrieved; Reuse: More reusable assets such as totes and pallets will be used because their location and renting partner will be real-time; Re-shipper corrugate cases will be utilized more; An infrastructure will be established to reuse hardened RFID tags; Reduce: Natural economic forces will significantly reduce RFID tag constituent content.

*DoD Response:* DoD appreciates this valuable information and analysis provided concerning the recycling impacts of RFID tags on packaging materials. DoD will continue to solicit and accept all research, studies, and analyses that document the impact of RFID tags to our environment and recycling industries worldwide.

67. *Comment:* (Item 1): Paragraph (b)(1)(ii) of the proposed clause 252.211-7XXX currently references shipment receiving sites Susquehanna PA and San Joaquin CA. Recommendation: We suggest removing reference in the clause to specific DLA receiving facilities, to point back to the contract for delivery site instruction. Please revise clause language to read: “(ii) Are being shipped as defined within section D (Delivery) or as defined elsewhere within the contract.”

*DoD Response:* The two specific sites are provided as guidance so that contracting officers will know what locations to include in section D of contracts.

68. *Comment:* (Item 2): Regarding the meaning of Unique as defined in the proposed clause 252.211-7XXX, we recommend adding the words “and all” as underlined below to ensure that the

meaning of the word unique is not misunderstood. (c) The Contractor shall ensure that—(1) The data encoded on each passive RFID tag are unique (*i.e.*, the binary number is never repeated on any *and all* contracts) and conforms to the requirements in paragraph (d) of this clause;

*DoD Response:* Agree. This change has been made in the final rule.

69. *Comment:* (Item 3): Subparagraph (e) of the proposed clause 252.211-7XXX, “Receiving report” provides a URL connection for instructions on Advance ship notification. Data found within URL Web sites are subject to random modification and change. Recommendation: We recommend the URL reference be replaced with either a reference to the ASN process found within MIL-STD-129 or as delineated within the contract.

*DoD Response:* While the content posted to the URL (<http://www.dodrfid.org/asn.htm>) is subject to modification, the version of the information posted to the URL in effect at the date of solicitation is binding.

70. *Comment:* Supplemental recommendation: Often the prime contractor will ship on multiple contracts adding to the level of complexity. It would be beneficial to add language to the proposed clause to encourage the use of the Single Process Initiative (SPI) where practicable.

*DoD Response:* Noted.

71. *Comment:* The respondent commented on the use of RFID tags in recycled materials and referred the reader to comments submitted by the Fibre Box Association with regard to a study being completed on RFID tags in recycling.

*DoD Response:* Noted.

72. *Comment:* The respondent expressed concern over the potential adverse impacts that RFID tags may have on their manufacturing processes when scrap material that has been manufactured into raw material are utilized to make new basic materials. The respondent recommends using a technique, in the future, for product design that takes recycling into account as the product is developed. Additionally, the respondent urges DoD to reconsider the timing of the policy until additional data can be derived relative to the impact of tags on the recycling supply chain.

*DoD Response:* It has been noted in comments from other industry associations that have commissioned studies on RFID tags (with both copper and silver antennas) that foil antennas can be sorted out at a 99%+ level, and printed silver ink antenna had a high resistance to move outside the substrate

and the silver remains in the fiber substrate of the paperboard, additionally, the silver concentrate in the solid waste and product streams are well below regulatory thresholds. The DoD will continue to monitor industry testing of recycling processes containing RFID tags or tag fragments. As the results of these tests become known, DoD RFID policy will be amended as required.

73. *Comment:* Reaching End-to-End supply chain visibility. End-to-End visibility is achieved through system integration across the supply chain—RFID merely simplifies asset identification.

○ Recommendation: Harmonizing current disparate information systems could greatly improve supply chain visibility using today’s bar codes.

*DoD Response:* Noted. The DoD is using barcode technology and RFID technology as well as other complementary AIT in addition to systems integration efforts to achieve End-to-End supply chain visibility.

74. *Comment:* Accuracy of the cost burden estimate

○ The IBM/AT Kearney study, “A Balanced Perspective: EPC/RFID Implementation in the CPG Industry” demonstrates most CPG categories have a negative 10-year Net Present Value Business Case.

○ IBM/ATK study shows product category dynamics significantly influences Return On Investment.

○ Costs to CPG manufacturers for RFID Implementation far exceed the initial DoD estimates.

○ Manufacturers receive virtually no benefits from RFID unless real-time product movement is shared by the DoD.

○ Recommendation: Pursue RFID programs on product categories with sufficient ROI to justify the extensive additional costs.

*DoD Response:* Our in-depth analysis indicates that CPG items are not typically shipped to DDSP and DDJC and therefore are not included within the scope of the current DFARS rule. The DoD is reviewing future requirements for specific classes of supplies and commodities to phase into the DoD RFID implementation.

75. *Comment:* Technology Issues.

○ Tag read rates on many CPG products remains low, both in test labs and in pilots.

○ Tag quality is uneven, resulting in additional costs to manufacturers.

○ Tag Application devices do not, for high volume manufacturers, operate at manufacturing line speeds, resulting in inefficiencies.

○ Recommendation: Pursue case-level RFID program on mission critical products.

*DoD Response:* Our in-depth analysis indicates that CPG items are not typically shipped to DDSP and DDJC and therefore are not included within the scope of the current DFARS rule. The DoD is reviewing future requirements for specific classes of supplies and commodities to phase into the DoD RFID implementation. The tag quality issue is being addressed by various organizations. There is no current standard for tag quality and this issue is being addressed by various industry organizations. The DoD will monitor any issue recommendations or resolutions for possible inclusion in future updates.

76. *Comment:* Tag location.

○ RFID technical limitations may render tag unreadable based on DoD specs.

○ *Recommendation:* Remove restriction on tag placement for CPG companies and allow placement based on maximum tag read rates.

*DoD Response:* Our in-depth analysis indicates that CPG items are not typically shipped to DDSP and DDJC and therefore are not included within the scope of the current DFARS rule. The MIL-STD-129 contains recommended tag placement location, but can be adjusted to get maximum tag read rates.

77. *Comment:* Advanced Ship Notification.

○ ASNs, when used properly, can provide many of the same benefits as RFID.

○ *Recommendation:* Aggressively pursue pallet level ASN implementations within the DoD supply chain.

*DoD Response:* The pallet is in the ASN, just not the only thing in the ASN. The benefit of an ASN lies in the positioning of shipment data into a receiving information system prior to the actual arrival of the corresponding shipment—thus providing the receiving organization with “actionable information” to make delivery changes or other key business decisions. RFID is a technology that improves the ability of users in supply chains to rapidly identify, record, and process items, shipments, or both. The use of an ASN with RFID technology facilitates the positioning of shipment data into a receiving information system and allows the immediate “hands off” receipt, via RFID, of that item into inventory upon the arrival of the actual shipment—thus speeding up product availability for the customer as well as invoice close-out and payment.

78. *Comment:* We believe that the DoD should consider a more targeted approach on high value categories that can generate a positive ROI, and avoid low cost/low value CPG products.

*Recommendation:* Pursue case-level RFID tagging for mission critical products (*i.e.*, CPG products not included) that current technology limitations can support. Continue to evaluate pallet-level RFID programs for CPG products and pursue implementation when and if RFID technology and costs warrant. Look at ways to leverage existing technologies like bar codes and ASNs on lower cost CPG products.

*DoD Response:* Our in-depth analysis indicates that CPG items are not typically shipped to DDSP and DDJC and therefore are not included within the scope of the current DFARS rule. The DoD implementation is already pursuing case and pallet level tagging for mission critical products and is reviewing future requirements for specific classes of supplies and commodities to phase into the DoD RFID implementation.

79. *Comment:* Initial Regulatory Flexibility Analysis of Passive RFID Version 1.2, March 2005—Specific Comments.

We have reviewed the DoD’s Initial Regulatory Flexibility Analysis of Passive RFID and would like to highlight a number of items for consideration: Section 1.5: The repeated references to a “nested” parent child relationship with EPC case tags and pallet tags is not a capability that exists broadly today amongst CPG manufacturers. All of the limited customer pilots at this point do not require the case level EPC serial numbers to be sent with the ASN.

*DoD Response:* Our in-depth analysis indicates that CPG items are not typically shipped to DDSP and DDJC and therefore are not included within the scope of the current DFARS rule. The current ASN structure for suppliers allows for a “nested” parent-child relationship between the pallet and case tags. See comments 81–87 for further clarification. The benefit of an ASN lies in the positioning of shipment data into a receiving information system prior to the actual arrival of the corresponding shipment—thus providing the receiving organization with “actionable information” to make delivery changes or other key business decisions. RFID is a technology that improves the ability of users in supply chains to rapidly identify, record, and process items, shipments, or both. The use of an ASN with RFID technology facilitates the positioning of shipment data into a

receiving information system and allows the immediate “hands off” receipt, via RFID, of that item into inventory upon the arrival of the actual shipment—thus speeding up product availability for the customer as well as invoice close-out and payment.

80. *Comment:* Section 3.2: The reference to the requirement of linear bar codes to access external databases is also a requirement with the current 96 bit passive RFID tags being used in the CPG industry. To obtain any details on the serialization on the tag would require querying an external database.

*DoD Response:* Noted.

81. *Comment:* Section 3.3: We agree that the two most logical choices to enable enhanced visibility in the DoD supply chain are bar codes and passive RFID tags. The idea that no human intervention is required on RFID tags is not correct for RF unfriendly products. Many food products in the CPG industry contain metals, liquids, and metalized films which prohibit these cases from being read in a typical pallet configuration. Since the capability does not broadly exist to send the serialization as part of an ASN, pallets would need to be broken down and cases passed individually in front of a reader in order to get 100% case level reads.

*DoD Response:* The inability to achieve 100% case level read rates does not relieve a shipper of the requirement to send the appropriate ASN with the tag serialization as part of the ASN. The nested parent child relationship between pallet and case tags inherent in the ASN will negate the need to obtain 100% case level tag reads.

82. *Comment:* Section 3.3.1: EPCglobal sees both bar codes and RFID technologies co-existing for years. This supports a more targeted approach of using bar codes on low-value products and RFID on high-value and high-importance items.

*DoD Response:* The DoD concurs with the EPCglobal outlook and plans to continue the use of both linear bar codes and two dimensional symbology in the suite of applicable supply chain technologies.

83. *Comment:* Section 4.4: Passive RFID is still unproven in harsh environments, specifically where refrigeration and freezing are involved due to condensation. Additionally, although referenced in this document, dynamic multi-block read and write capability is not available in the current 96 bit tags. The specifications are also moving to “locked” tags which secure the data written by manufacturers.

*DoD Response:* Our in-depth analysis indicates that CPG items are not

typically shipped to DDSP and DDJC and therefore are not included within the scope of the current DFARS rule. The DoD is reviewing future requirements for specific classes of supplies and commodities to phase into the DoD RFID implementation.

84. *Comment:* Section 5.1: Adoption rates are much slower than originally estimated, highlighted by the information shared earlier from the AMR Research report.

*DoD Response:* The Regulatory Flexibility Analysis has been updated to include the most recent adoption rates from the most recent 2005 AMR report.

85. *Comment:* Cost & Benefit Analysis—True Impact To Suppliers Section 6.4: There are a number of items in the benefit and cost analysis that do not accurately reflect the true cost impact to suppliers of meeting the proposed DoD RFID tagging requirements. Industry data concurs that there will be incremental costs of managing separate inventories of tagged and non-tagged products. Depending on the levels of automation, these costs can range from \$0.75 to \$2.00 per case in a postproduction “slap and ship” environment. Additionally, many of the research and development (RFID labs), infrastructure, software, middleware, material handling equipment, etc. are not included in the economics. The economic examples listed around a \$4,000 printer and a \$0.50 tag are highly simplistic and do not reflect the true costs of an enterprise implementation of RFID. Individual company business cases show these costs can be as high as tens of millions of dollars, not to mention reoccurring tag costs.

*DoD Response:* Noted. Those costs included in the cost analysis were not intended to reflect the true cost of an enterprise implementation of RFID. These costs were provided as examples of how a business, particularly a small or medium sized business, can comply with the RFID policy without spending millions of dollars.

86. *Comment:* Company background: SUPERVALU is the nation’s largest publicly held food wholesaler in the United States. We are a Fortune 500 company which had last year sales of \$19.5 billion as both a grocery retailer and wholesaler. SUPERVALU has been following both Wal-Mart’s and DoD’s RFID initiatives. Publicly we are opposed to the mandate to DeCA to implement RFID by January 1, 2007 for several reasons: 1. RFID is still not a proven technology ready for a production roll out across the grocery industry. Most food manufacturers and grocery companies involved are only in

pilot mode and are running into many challenges today.

2. Currently RFID does not work well on “mixed” pallets (e.g., 70–120 cases on a pallet that may represent 50–120 different products) that a DeCA commissary (or grocery) receives from their distributors due to the high error rate for mixed pallets. While Wal-Mart is often cited for mandating RFID requirements, Wal-Mart is using RFID on full pallets of one product not multiple, different products.

3. Error rates on “mixed” pallets are even higher when foil and liquids are on the same pallet as they obscure the RFID signal.

4. There is no, or little, ROI at this point in time given the cost of the EPC tags compared to the average case value especially with such a high error rate. An investment in RFID hardware today is considered “throw away” as the technology is still maturing. For example, frequent changes are necessary to resolve many of the readability issues that are occurring in today’s pilots.

5. Finally, attaching RFID tags for groceries going to a commissary is not the intent of “End to End Warfighter Support Initiative” (i.e. implementing RFID to speed products and supplies to the “war fighters” in combat zones).

We also have concerns over who should tag the product when a distributor supplies the product to DeCA. Will manufacturers have to incur the expense of having to tag products going to a distributor, when only a small percentage of the items would be shipped to DeCA? On the other hand if manufacturers refuse to tag the product, will the distributor be required to add the tags? If so, who will pay this expense?

*Recommendation:* Due to the technology infancy of RFID, the high cost of implementing RFID for low value goods (e.g. groceries), and that adding RFID tags for grocery products going to a commissary have no impact on the End to End Warfighter Support Initiative, that in January 2007, DoD review RFID technology to:

1. Determine if it is mature enough and being used in the grocery industry.

2. If there is a ROI on implementing RFID down to the case level.

3. And if technology is mature, to establish an implementation date, or if technology is not mature to establish another review date both preferably 18–24 months out.

*DoD Response:* Our in-depth analysis indicates that CPG items are not typically shipped to DDSP and DDJC and therefore are not included within the scope of the current DFARS rule. The DoD is reviewing future

requirements for specific classes of supplies and commodities to phase into the DoD RFID implementation.

87. *Comment:* Hewlett-Packard (HP) finds that the Advance Shipment Notice (ASN) information requirements in the current state have seriously significant impact. There are two interconnected areas of concern: (a) Lack of industry standards: Current standards for ASN messaging have not yet caught up to include RFID standard information sets. HP understands that ANSI standards, designed to include extensions for EPC data, are underway but have not yet been proposed nor approved. Using requirements unique to DoD, or immature requirements that must soon be changed, causes unreasonable investment to be made by suppliers wishing to conform to the requirements. (b) Multiple implementations: Due to the large and diverse nature of HP products, geographies and organizations, multiple implementations would be required. This multiplies the investment burden. This is, of course, at HP’s discretion—however, the combination of multiple implementations due to evolving standards (a) makes the investment burden excessively large.

*Recommendation:* Have ASN notifications be optional until industry standards can be completed and folded in to the DoD requirements.

*DoD Response:* The Department intends to maintain the requirement for ASNs as a mandatory component of the DFARS rule. RFID is a technology that improves the ability of users in supply chains to rapidly identify, record, and process items, shipments, or both. The use of an ASN with RFID technology facilitates the positioning of shipment data into a receiving information system and allows the immediate “hands off” receipt, via RFID, of that item into inventory upon the arrival of the actual shipment—thus speeding up product availability for the customer as well as invoice close-out and payment.

88. *Comment:* The respondent finds that the implied label placement specifications for case labels are overly restrictive, and may have seriously significant impact. As stated, the DoD specification requires: “The passive RFID tag should be placed on the identification-marked side and right of center on a vertical face \* \* \*.” Product cases are often heavily printed, and have limited, designated areas for labels. The respondent intends to use integrated address/RFID labels, and has only moderate concern about the restrictions for location of labels on the vertical surface of the case. The respondent has serious concerns about

the designation of "side" versus "end" of cases. The respondent's standard product design currently has address placement on the "end" of cases. Changing address label placement in product design is impractical and costly. RFID readers and antennae can be placed appropriately to handle either location.

**Recommendation:** Allow either side or end placement of address labels, without qualification.

**DoD Response:** The MIL-STD-129 contains recommended tag placement location, but can be adjusted to get maximum tag read rates.

89. **Comment:** The respondent recognizes the likelihood of forklift mounted RFID readers in the near future. Industry standards have not yet addressed the issue of pallet tag location, however it seems likely that the combination of partial pallets and the mechanical characteristics of forklifts will likely influence industry standards to have a lower end range, such as 40 cm above the floor.

**Recommendation:** Modify lower end range of pallet tag location specification to 40 cm.

**DoD Response:** The MIL-STD-129 contains recommended tag placement location, but can be adjusted to get maximum tag read rates.

90. **Comment:** The respondent is concerned about the effects that future RFID tag technology might have in the processes of recovering different paper grades for recycling, when the paper products are affixed with RFID tags. The respondent recommends a collaborative effort with DoD to avoid incorrectly applying data from one segment of the recycling industry to recycled paperboard.

**DoD Response:** Noted. We have added additional information from other segments of the recycling industry to the Regulatory Flexibility Analysis to give a more balanced view of the industry as a whole. We look forward to continued work with industry associations as the RFID effort moves forward.

91. **Comment:** The respondent presented its opposition on requiring contractors to affix RFID tags at the case and palletized unit load levels when shipping certain purchased supplies and equipment until further information presents itself; outlining the full economic and environmental impacts of RFID tags on the recycling industry. The respondent recommends that DoD proceed cautiously. The RFID tags may have the potential to contaminate large quantities of currently recyclable material due to its heavy metals content. Moreover, small chips or pieces of metal slipping through the screening process

during the cleaning and screening process could be a potential problem for paperboard packaging that comes into contact with food or pharmaceuticals. Metals are prohibited in paperboard that will come into contact with food or pharmaceuticals. Additional concerns are that metals in the RFID tags that would be contaminants in the steelmaking process, such as copper, could end up going up the stack as air emissions or stay in the product. The metals constituents of the RFID tags will be contaminants for PET, HDPE, and especially glass when concentrated. The DoD should either fund studies or seek partnerships with other federal agencies with knowledge of the recycling industry to determine the financial impacts of this decision on the recycling industry and whether making this policy change would make sense from an environmental standpoint before making any final decision.

**DoD Response:** It has been noted in comments from other industry associations that have commissioned studies on RFID tags (with both copper and silver antennas) that foil antennas can be sorted out at a 99%+ level, and printed silver ink antenna had a high resistance to move outside the substrate and the silver remains in the fiber substrate of the paperboard, additionally, the silver concentrate in the solid waste and product streams are well below regulatory thresholds. The DoD will continue to monitor industry testing of recycling processes containing RFID tags or tag fragments. As the results of these tests become known, DoD RFID Policy will be amended as required.

92. **Comment:** The respondent commented on the current RFID environment, technology and the work being done to ensure interoperability.

**DoD Response:** Noted.

93. **Comment:** The respondent commented on preliminary results from a study completed on the recycling of RFID tags which are attached to corrugated products. This study included crystalline connected copper and aluminum as well as printed antennae. The study indicated that existing process technologies in paper and board mills are capable of satisfactorily dealing with the crystalline connected antennae. More research is needed to determine if process changes are required for printed antennae

**DoD Response:** DoD appreciates this valuable input. DoD will continue to solicit and accept all research, studies, and analyses that document the impact of RFID tags to our environment and recycling industries worldwide.

This rule was subject to Office of Management and Budget review under Executive Order 12866, dated September 30, 1993.

## B. Regulatory Flexibility Act

This final rule may have an impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.* DoD has prepared a final regulatory flexibility analysis, available at <http://www.dodrfid.org/regflex.htm>. The analysis is summarized as follows:

This rule adds requirements for DoD contractors supplying materiel to the Department to affix passive RFID tags at the case and palletized unit load levels for specified commodities delivered to specified DoD locations. To create an automated and sophisticated end-to-end supply chain, DoD is dependent upon initiating the technology at the point of origin, the DoD commercial suppliers. Without the assistance of the DoD supplier base to begin populating the DoD supply chain with passive RFID tags, a fully integrated, highly visible, automated end-to-end supply chain is untenable. DoD contractors are presently required to print and affix military shipping labels to packages delivered to DoD. Options to comply with the requirements of the rule can be as simple as replacing existing military shipping label printers with RFID-enabled printers. This will allow DoD contractors to print military shipping labels with embedded RFID tags. The regulatory flexibility analysis also details other options and approximate costs to comply. The rule also requires 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. The objective of the rule is to improve visibility of DoD assets in the supply chain, increase accuracy of shipments and receipts, and reduce the number of logistic "touch points" in order to decrease the amount of time it takes to deliver material to the warfighter. The rule does not duplicate, overlap, or conflict with any other Federal rules. DoD considered all public comments in developing the final rule.

## C. Paperwork Reduction Act

This final rule contains a new information collection requirement. The Office of Management and Budget has approved the information collection for use through September 30, 2008, under Control Number 0704-0434.

**List of Subjects in 48 CFR Parts 211, 212, and 252**

Government procurement.

**Michele P. Peterson,**

*Editor, Defense Acquisition Regulations System.*

■ Therefore, 48 CFR Parts 211, 212, and 252 are amended as follows:

■ 1. The authority citation for 48 CFR Parts 211, 212, and 252 continues to read as follows:

Authority: 41 U.S.C. 421 and 48 CFR Chapter 1.

**PART 211—DESCRIBING AGENCY NEEDS**

■ 2. Sections 211.275 through 211.275-3 are added to read as follows:

**211.275 Radio frequency identification.****211.275-1 Definitions.**

*Bulk commodities, case, palletized unit load, passive RFID tag, and radio frequency identification* are defined in the clause at 252.211-7006, Radio Frequency Identification.

**211.275-2 Policy.**

Radio frequency identification (RFID), in the form of a passive RFID tag, is required for individual cases and palletized unit loads that—

(a) Contain items in any of the following classes of supply, as defined in DoD 4140.1-R, DoD Supply Chain Materiel Management Regulation, AP1.1.11, except that bulk commodities are excluded from this requirement:

(1) Subclass of Class I—Packaged operational rations.

(2) Class II—Clothing, individual equipment, tentage, organizational tool kits, hand tools, and administrative and housekeeping supplies and equipment.

(3) Class VI—Personal demand items (non-military sales items).

(4) Class IX—Repair parts and components including kits, assemblies and subassemblies, repairable and consumable items required for maintenance support of all equipment, excluding medical-peculiar repair parts; and

(b) Will be shipped to one of the following locations:

(1) Defense Distribution Depot, Susquehanna, PA: DoDAAC W25G1U or SW3124.

(2) Defense Distribution Depot, San Joaquin, CA: DoDAAC W62G2T or SW3224.

**211.275-3 Contract clause.**

Use the clause at 252.211-7006, Radio Frequency Identification, in solicitations and contracts that will

require shipment of items meeting the criteria at 211.275-2.

**PART 212—ACQUISITION OF COMMERCIAL ITEMS**

■ 3. Section 212.301 is amended by removing paragraph (3) introductory text and paragraphs (3)(i) through (iii) and adding paragraph (f)(ix) at the end of the section to read as follows:

**212.301 Solicitation provisions and contract clauses for the acquisition of commercial items.**

\* \* \* \* \*

(f) \* \* \*

(ix) Use the clause at 252.211-7006, Radio Frequency Identification, as prescribed in 211.275-3.

**PART 252—SOLICITATION PROVISIONS AND CONTRACT CLAUSES**

■ 4. Section 252.211-7006 is added to read as follows:

**252.211-7006 Radio Frequency Identification.**

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

Radio Frequency Identification (Nov 2005)

(a) *Definitions.* As used in this clause—

*Advance shipment notice* means an electronic notification used to list the contents of a shipment of goods as well as additional information relating to the shipment, such as order information, product description, physical characteristics, type of packaging, marking, carrier information, and configuration of goods within the transportation equipment.

*Bulk commodities* means the following commodities, when shipped in rail tank cars, tanker trucks, trailers, other bulk wheeled conveyances, or pipelines:

(1) Sand.

(2) Gravel.

(3) Bulk liquids (water, chemicals, or petroleum products).

(4) Ready-mix concrete or similar construction materials.

(5) Coal or combustibles such as firewood.

(6) Agricultural products such as seeds, grains, or animal feed.

*Case* means either a MIL-STD-129 defined exterior container within a palletized unit load or a MIL-STD-129 defined individual shipping container.

*Electronic Product Code™ (EPC)* means an identification scheme for universally identifying physical objects via RFID tags and other means. The standardized EPC data consists of an EPC (or EPC identifier) that uniquely identifies an individual object, as well as an optional filter value when judged to be necessary to enable effective and efficient reading of the EPC tags. In addition to this standardized data, certain classes of EPC tags will allow user-defined data. The EPC tag data standards will define the length

and position of this data, without defining its content.

*EPCglobal™* means a joint venture between EAN International and the Uniform Code Council to establish and support the EPC network as the global standard for immediate, automatic, and accurate identification of any item in the supply chain of any company, in any industry, anywhere in the world.

*Exterior container* means a MIL-STD-129 defined container, bundle, or assembly that is sufficient by reason of material, design, and construction to protect unit packs and intermediate containers and their contents during shipment and storage. It can be a unit pack or a container with a combination of unit packs or intermediate containers. An exterior container may or may not be used as a shipping container.

*Palletized unit load* means a MIL-STD-129 defined quantity of items, packed or unpacked, arranged on a pallet in a specified manner and secured, strapped, or fastened on the pallet so that the whole palletized load is handled as a single unit. A palletized or skidded load is not considered to be a shipping container. A loaded 463L System pallet is not considered to be a palletized unit load. Refer to the Defense Transportation Regulation, DoD 4500.9-R, Part II, Chapter 203, for marking of 463L System pallets.

*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; and  
(2) EPC Class 1 passive RFID tags that meet the EPCglobal Class 1 specification.

*Radio Frequency Identification (RFID)* means an automatic identification and data capture technology comprising one or more reader/interrogators and one or more radio frequency transponders in which data transfer is achieved by means of suitably modulated inductive or radiating electromagnetic carriers.

*Shipping container* means a MIL-STD-129 defined exterior container that meets carrier regulations and is of sufficient strength, by reason of material, design, and construction, to be shipped safely without further packing (e.g., wooden boxes or crates, fiber and metal drums, and corrugated and solid fiberboard boxes).

(b)(1) Except as provided in paragraph (b)(2) of this clause, the Contractor shall affix passive RFID tags, at the case and palletized unit load packaging levels, for shipments of items that—

(i) Are in any of the following classes of supply, as defined in DoD 4140.1-R, DoD Supply Chain Materiel Management Regulation, AP1.1.11:

(A) Subclass of Class I—Packaged operational rations.

(B) Class II—Clothing, individual equipment, tentage, organizational tool kits, hand tools, and administrative and housekeeping supplies and equipment.

(C) Class VI—Personal demand items (non-military sales items).

(D) Class IX—Repair parts and components including kits, assemblies and subassemblies,

reparable and consumable items required for maintenance support of all equipment, excluding medical-peculiar repair parts; and

(ii) Are being shipped to—

(A) Defense Distribution Depot, Susquehanna, PA: DoDAAC W25G1U or SW3124; or

(B) Defense Distribution Depot, San Joaquin, CA: DoDAAC W62G2T or SW3224.

(2) Bulk commodities are excluded from the requirements of paragraph (b)(1) of this clause.

(c) The Contractor shall ensure that—

(1) The data encoded on each passive RFID tag are unique (*i.e.*, the binary number is never repeated on any and all contracts) and conforms to the requirements in paragraph (d) of this clause;

(2) Each passive tag is readable at the time of shipment in accordance with MIL-STD-129 (Section 4.9.1.1) readability performance requirements; and

(3) The passive tag is affixed at the appropriate location on the specific level of packaging, in accordance with MIL-STD-129 (Section 4.9.2) tag placement specifications.

(d) *Data syntax and standards.* The Contractor shall use one or more of the following data constructs to write the RFID tag identification to the passive tag, 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):

(1) Class 0, 64 Bit Tag—EPCglobal Serialized Global Trade Item Number (SGTIN), Global Returnable Asset Identifier (GRAI), Global Individual Asset Identifier (GIAI), or Serialized Shipment Container Code (SSCC).

(2) Class 0, 64 Bit Tag—DoD Tag Construct.

(3) Class 1, 64 Bit Tag—EPCglobal SGTIN, GRAI, GIAI, or SSCC.

(4) Class 1, 64 Bit Tag—DoD Tag Construct.

(5) Class 0, 96 Bit Tag—EPCglobal SGTIN, GRAI, GIAI, or SSCC.

(6) Class 0, 96 Bit Tag—DoD Tag Construct.

(7) Class 1, 96 Bit Tag—EPCglobal SGTIN, GRAI, GIAI, or SSCC.

(8) Class 1, 96 Bit Tag—DoD Tag Construct.

(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>.

(End of Clause)

[FR Doc. 05-18025 Filed 9-12-05; 8:45 am]

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 648

[Docket No. 050708184-5235-02; I.D. 070105B]

RIN 0648-AT50

#### Fisheries of the Northeastern United States; Atlantic Bluefish and Summer Flounder Fisheries

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** NMFS issues this final rule to amend the regulations implementing the Fishery Management Plan (FMP) for the Atlantic bluefish fishery and the FMP for the summer flounder, scup, and black sea bass fisheries. This rule makes administrative changes that will allow NMFS to consider and process state commercial quota transfer requests that address late-season circumstances that necessitate a state quota transfer. The intent of this action is solely to provide the flexibility to address unpredictable late-season events (such as severe weather or port obstruction) that may result in safety concerns in the commercial bluefish and summer flounder fisheries.

**DATES:** Effective October 13, 2005.

**FOR FURTHER INFORMATION CONTACT:** Sarah McLaughlin, Fishery Policy Analyst, (978) 281-9279.

**SUPPLEMENTARY INFORMATION:**

#### Background

The bluefish and summer flounder fisheries are managed cooperatively by the Atlantic States Marine Fisheries Commission (Commission) and the Mid-Atlantic Fishery Management Council (Council), in consultation with the New England and South Atlantic Fishery Management Councils. Regulations implementing the Atlantic Bluefish FMP appear at 50 CFR part 648, subparts A and J. Regulations implementing the summer flounder portion of the Summer Flounder, Scup, and Black Sea Bass FMP appear at 50 CFR part 648, subparts A and G.

NMFS published a proposed rule to amend the regulations regarding state commercial bluefish and summer flounder quota transfers on July 26, 2005 (70 FR 43111). A complete discussion of the development of this regulatory amendment appeared in the

preamble of the proposed rule and is not repeated here.

The current regulations, found at §§ 648.160 and 648.100, respectively, outline a process by which a state may request written approval from the Regional Administrator to transfer all or part of its annual commercial bluefish or summer flounder quota to one or more other states. Currently, NMFS maintains a policy of considering only quota transfer requests submitted by December 15 of each year in order to ensure that a notice announcing the quota transfer could be filed with the Office of the **Federal Register** by the end of the year for which the request is made. However, the Council is concerned that unforeseen circumstances, such as severe weather or physical obstruction, may prevent vessels from returning safely to their intended port of landing, and that this situation has arisen and may continue to arise during the second half of December in any given year. End-of-year transfers of quota allow vessels to land in another state without causing overharvest of that state's fishing year quota, provided that both states agree to the transfer. NMFS agrees that this administrative change in the regulations will facilitate the consideration and processing of state quota transfer requests to address unpredictable late-season events and consequent safety issues in these fisheries. This rule eliminates the references to time of effectiveness in the bluefish and summer flounder quota transfer and combination regulations. With these changes, quota transfer requests addressing unforeseen conditions in either fishery that arise late in the fishing year could be approved, even if the transfer request is made in the subsequent fishing year. Any quota transfer would continue to be valid only for the calendar year for which the request is made, and would therefore have no impact on the resource or the mortality objectives of the FMPs.

#### Comments and Responses

NMFS received three comment letters regarding the proposed rule (70 FR 43111, July 26, 2005).

*Comment 1:* The State of North Carolina and a North Carolina industry association both indicated that the proposed action would address safety concerns, particularly for fishermen using Oregon Inlet, NC, and would give states the flexibility to allow fisheries to continue through transfers of quota that would otherwise not be harvested.

*Response:*

NMFS agrees and is implementing the proposed action in this final rule.