Reference: TACOM Ground Precautionary Action (GPA) Message 08-015, dated 29 April 2008.

The following inspection criteria supersedes the strictly age based method of determining the appropriate service life for each Fabric Tanks, Collapsible, Fuel 3K – 210K tank contained in TACOM Maintenance Advisory Message (MAM) 06-048, dated 8 Aug 2006 and MAM 99-007, dated 22 Jun 1999.

The following procedures:

Black, Red, Amber, and Green (BRAG) Rating System for Collapsible Fabric Fuel Tanks (24 APRIL 2008, Revision D)

will be used until TB 10-5430-253-13 is published at which time the TB will be the official means of determining the service life of the subject fuel tanks.

# Black, Red, Amber, and Green (BRAG) Rating System for Collapsible Fabric Fuel Tanks (24 APRIL 2008, Revision D)

- 1.0 <u>FORWARD</u>: Acknowledgment and thanks are in order to SSG Allan A. Polasko 475<sup>th</sup> QM GP, SFC Pat Billet 635th QM DET and SFC John M. Jumper 3rd QM DET. These individuals are the originators of the BRAG Rating System.
- 2.0 <u>INTRODUCTION</u>: This document shall be used in conjunction with Ground Precautionary Message (GPM), TACOM Control No. GPM xxx, 08-xxx. Until TB 10 5430-253-13 is authenticated and published the user can shall use the following inspection criteria to determine the use life of fuel tanks. Once published TB 5430-253-13 will be the official means of rating fuel tank integrity and determining the service life of the fuel tanks. Implementation of this rating system may extend or shorten the service life of a fuel tank.
- 3.0 <u>PURPOSE</u>: The purpose of this document is to establish a rating system for use by bulk fuel storage site supervisors to more accurately record and report fuel tank conditions. The rating system will provide an assessment of the integrity of fuel tanks and prevent catastrophic fuel tank failures to the maximum extent possible. The system will establish actions and precautions to be taken for each fuel tank brought under surveillance. The system can maximize the lifespan and serviceability of tanks and maintain stock objectives for bulk fuel storage.
- 4.0 <u>BLACK, RED, AMBER AND GREEN (BRAG) RATING SYSTEM</u>: The BRAG rating system places a fuel tank into a Black, Red, Amber or Green status. The status is the means by which the site supervisor can establish an overall evaluation of each fuel tank and its integrity to hold fuel.
  - 1) **G**reen: Fully mission capable (FMC) able to use to 100% of maximum storage capacity.
  - 2) Amber: Signs of deterioration but able to use at 70% of the maximum storage capacity.
  - 3) Red: Displays evidence of failure but able to use at 50% of maximum storage capacity.
  - 4) <u>B</u>lack: Non-mission capable (NMC); non-reparable; discontinue use immediately.

A properly maintained Bulk Storage Tank Spreadsheet (BSTS) can provide a quick assessment condition of the all the tanks at a bulk fuel storage site. (See the sample spreadsheet at Appendix A.)

#### 4.1 STORAGE CAPCITY:

4.1.1 The maximum storage capacity of a fuel tank shall be set by the status (which establishes the tanks integrity.) Tables (1) through (5) shall be used to determine the maximum storage capacity by cross linking the fuel tank capacity and status.

(NOTE: 20,000, 10,000 and 3,000 gallon fuel tanks are covered by the document, but are only occasionally used at bulk fuel storage site.)

4.1.2 A reduction in a fuel tank's BRAG status will reduce the maximum storage capacity of the bulk storage site. Once the bulk storage site supervisor determines the general status of a tank has changed, that change must be recorded on a Bulk Storage Tank Record (BSTR). An example of a BSTR can be found at Appendix B. Once the tank is designated at the BRAG status Red, the capacity will not be further reduced. The fuel tank capacity is at 50% of its original design. When a tank is designated as BRAG status Black, command guidance will be issued for corrective actions on tank disposition and replacement.

(NOTE: The Bulk Storage Tank Record (BSTR) is the record for an individual tank. The Bulk Storage Tank Spreadsheet (BSTS) tracks all the tanks at the bulk fuel storage site. The site supervisor will use the BSTR to build the BSTS.)

(NOTE: Details for determining BRAG status begins at section 4.4.)

TABLE (1): 210,000 Gallon Fuel Tank Maximum Storage Capcity								
GREEN								
210,000 gal./100%								
AMBER								
147,000 gal./70%								
RED								
105,000 gal./50%								
BLACK								
0 gal./0%								

TABLE (2): 50,000 Gallon Fuel Tank Maximum Storage Capcity
GREEN
50,000 gal./100%
AMBER
35,000 gal./70%
RED
25,000 gal./50%
BLACK
0 gal./0%

TABLE (3): 20,000 Gallon Fuel Tank Maximum Storage Capcity								
GREEN								
20,000 gal./100%								
AMBER								
14,000 gal./70%								
RED								
10,000 gal./50%								
BLACK								
0 gal./0%								

TABLE (4): 10,000 Gallon Fuel Tank Maximum Storage Capcity								
GREEN								
10,000 gal./100%								
AMBER								
7,000 gal./70%								
RED								
5,000 gal./50%								
BLACK								
0 gal./0%								

TABLE (5): 3,000 Gallon Fuel Tank Maximum Storage Capcity										
GREEN										
3,000 gal./100%										
AMBER										
2,100 gal./70%										
RED										
1,500 gal./50%										
BLACK										
0 gal./0%										

4.2 <u>BASELINE INSPECTION</u>: Every tank should be free of defects when removed from the manufacturers packaging and less than 12 years old (date of manufacture). Each tank will be inspected prior to being placed into service. This is also referred to as the service date or wet date. This is the point of origin for establishing the Bulk Storage Tank Record (BSTR). The inspector will use the BSTR to record all current deficiencies and signs of deterioration. This will establish a baseline on the condition of each tank. If defects are found a Quality Deficiency Report (QDR) should be completed (See Appendix C). Figure 1 provides examples of manufacturer installed patches and seam repairs that are not considered to be deficiencies. During the baseline inspection, inspectors will verify that the service date is marked on the tank with a permanent means and that all the correct information is marked on the data plate (Figure 2). The site supervisor is responsible for completing the record and determining the overall BRAG status of the fuel tank (Black, Red, Amber or Green). A copy of the BSTR shall be maintained on file by the site supervisor.

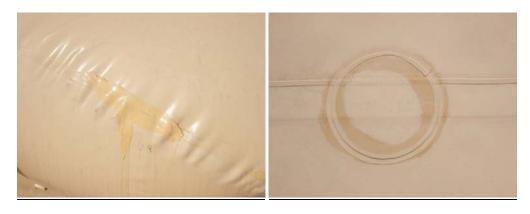


FIGURE 1. Two examples of manufacturer repairs/patches not considered deficiencies during the baseline inspection. These types of repairs/patches do not affect the BRAG status, but their location shall be noted on the BSTR for future monitoring and inspections.

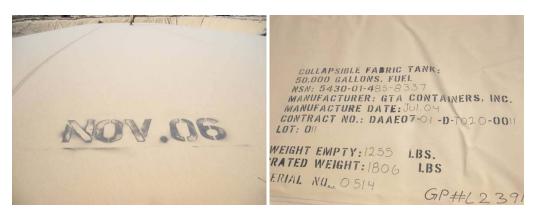


FIGURE 2. Left photo shows a tank marked with its service date. Right photo shows a data plate. Note that the site supervisor was required to add missing information to the data plate. Because this data plate was missing information, the site supervisor prepared a QDR (Appendix C). The missing information was found on the external wall of the tank crate.

- 4.3 <u>INSPECTION CYCLE</u>: Inspections shall be conducted on a daily basis.

  Adjustments to the inspection cycle can be modified by local command prerogative.

  Berm liners are to be inspected for serviceability whenever the tanks are inspected.
- 4.4 METHOD FOR DETERMINING THE BRAG STATUS: The following information will help the site supervisor and inspector determine the BRAG status based on a visual inspection and overall condition of a fuel tank. Seeps, drips, leakage and damp spots will be indentified by CLASS. The location, quantity and severity of leakage contribute to determining a fuel tank's BRAG status. Learning these leakage definitions will take some hands-on experience. When in doubt, notify the site supervisor for a final decision.

#### **BRAG STATUS**

- BRAG STATUS GREEN: Fully Mission Capable (FMC)
- BRAG STATUS AMBER: Minor
- BRAG STATUS RED: Major
- BRAG STATUS BLACK: Critical Non-Mission Capable (NMC)

#### CLASS OF FLUID LEAKAGE

- Class I: Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
- Class II: Leakage of fluid (as indicated by wetness or discoloration) great enough to form drops that do not fall from the tank being checked / inspected.
- Class III: Leakage of fuel great enough to form drops that fall from the tank being checked / inspected.
- Class IV: Leakage found under the tank, evidence of dampness on the ground around the tank or the tank has exhibited a reduction in the volume of fuel.

(NOTE: Sections 4.4.1 through 4.4.6 breakdown leakage by locations on the tank. They include fabric panels, seams in between the fabric panels, corners of the tank, seam separation, blisters and fitting assemblies (filler/discharge, vent pipe and drain fitting assemblies.) If the BRAG status is RED at the fabric panel and GREEN at all other locations the tank shall receive the "lowest" BRAG status. In this example the BRAG status will be RED.)

## 4.4.1 FABRIC PANELS:

- BRAG STATUS GREEN: Fully Mission Capable Shows no signs of unusual wear; few small Class I leakage.
  - Class I: Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
    - Corrective Action: Note the location and deficiency on BSTR.
- BRAG STATUS AMBER: Minor Signs of deterioration; many (less then 12" diameter)
   Class I leakage spread out over the tank; three or more Class I leakage that exceeds 12"

inches in diameter on the same panel; repairable Class II; one or two repairable Class III, or Class IV leakage.

- Class I: Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
  - Corrective Action: Note the location(s) and deficiency on the BSTR.
- Class II: Leakage of fluid (as indicated by wetness or discoloration) great enough to form drops that do not fall from the tank being checked / inspected.
  - Corrective Action: Note the location and deficiency on the BSTR.
- Class III: Leakage of fuel great enough to form drops that fall from the tank being checked / inspected.
  - Corrective Action: Note the location and deficiency on the BSTR. Patch the deficiency and leakage stops.
- Class IV: Leakage found under the tank, evidence of dampness on the ground around the tank or the tank has exhibited a reduction in the volume of fuel.

0

- Corrective Action: Note the location and deficiency on the BSTR. Patch the deficiency and leakage stops.
- BRAG STATUS RED: Major Displays evidence of failure; many Class I/II leakage greater than 12 inches in diameter; three or more Class III/IV leakage that are repairable; reduce storage level to 50% of capacity.
  - Class I: Seepage of Fluid (as indicated by wetness or discoloration) not great enough to form drops.
    - Corrective Action: Note the location and deficiency on the BSTR.
  - Class II: Leakage of fluid (as indicated by wetness or discoloration) great enough to form drops that do not fall from the tank being checked / inspected.
    - Corrective Action: Note the location and deficiency on the BSTR.
  - Class III: Leakage of fuel great enough to form drops that fall from the tank being checked / inspected.
    - Corrective Action: Note the location and deficiency on the BSTR. Patch the deficiency and leakage stops.
  - Class IV: Leakage found under the tank, evidence of dampness on the ground around the tank or the tank has exhibited a reduction in the volume of fuel.
     (Figure 3)
    - Corrective Action: Note the location and deficiency on the BSTR.
       Deficiency is not repairable, move to BRAG status BLACK.
- BRAG STATUS BLACK: Critical Non-mission capable (NMC), non-repairable and discontinue use immediately. Remove tank from service as soon as possible. Store tank in a secure location and initiate a QDR (Appendix C) as soon as possible if less then 3 years from service date.



Figure 3: Example of a Class IV leak. The dirt within the red outline is saturated with fuel from three Class IV leaks underneath the tank. There were three patches put in place that stopped the leaks for eight months. When the tank started leaking again the leakage areas were cleaned and patched again but this time the patching failed and continued to leak. The tank was removed from service.

### 4.4.2 SEAMS:

• **BRAG STATUS GREEN:** FMC - Shows no signs of unusual wear; few Class I leakage.

 Class I: Seepage of Fluid (as indicated by wetness or discoloration) not great enough to form drops.

Corrective Action: Note the deficiency on the BSTR.

BRAG STATUS AMBER: Minor - Signs of deterioration; many (less then 12" diameter)
 Class I leakage; one or two Class I leakage that exceeds 12" inches in diameter along the same seam; repairable Class II, Class III, or Class IV leakage.

(1 - What is the difference between a few and many Class I leakage? This is a judgment call made by the site-supervisor or experienced on-hands fuel tank personnel. Has the tank's integrity decreased enough to downgrade the status of the tank?

**Example 1**: 3 Class I (between 6-12 inches) leakages that are spread out over the tank on different seams is not a reason to downgrade the status. A similar judgment call must be made when inspecting fabric panels.

**Example 2**: 3 Class I (between 6-12 inches) leakages that are grouped together along the same seam is a reason to downgrade the tank because the seam is showing early signs of failure. A similar judgment call must be made when inspecting fabric panels.)

- Class I: Seepage of Fluid (as indicated by wetness or discoloration) not great enough to form drops.
  - Corrective Action: Note the location and deficiency on the BSTR.
- Class II: Leakage of fluid (as indicated by wetness or discoloration) great enough to form drops that do not fall from the tank being checked / inspected.
  - Corrective Action: Note the deficiency on the BSTR. Patch the deficiency.
- Class III: Leakage of fuel great enough to form drops that fall from the tank being checked / inspected.
  - Corrective Action: Note the location and deficiency on the BSTR. Patch the deficiency and leakage stops. (Figure 4)
- o Class IV: Leakage found under the tank, evidence of dampness on the ground around the tank or the tank has exhibited a reduction in the volume of fuel.

 Corrective Action: Note the location and deficiency on the BSTR. Patch the deficiency and leakage stops.



Figure 4: Example of a Class III leak. This leak was repairable making its BRAG status AMBER.

- BRAG STATUS RED: Major displays evidence of failure; multiple Class I/II leakage greater than 12' diameter along the same seam line (Figure 5) or spread out over the tank; three or more repairable Class III/IV leakage; reduce storage level to 50% of capacity.
  - Class I: Seepage of Fluid (as indicated by wetness or discoloration) not great enough to form drops.
    - Corrective Action: Note location and the deficiency on the BSTR.
  - Class II: Leakage of fluid (as indicated by wetness or discoloration) great enough to form drops that do not fall from the tank being checked / inspected.
    - Corrective Action: Note the location and deficiency on the BSTR.
  - Class III: Leakage of fuel great enough to form drops that fall from the tank being checked / inspected.
    - Corrective Action: Note the location and deficiency on the BSTR. Patch the deficiency and leakage stops.
  - Class IV: Leakage found under the tank, evidence of dampness on the ground around the tank or the tank has exhibited a reduction in the volume of fuel.
    - Corrective Action: Note the location and deficiency on the BSTR.
       Deficiency is not repairable, move to BRAG status BLACK.



Figure 5: Example of multiple Class I/II leakage greater than 12" in diameter along the same seam line. BRAG status RED.

• BRAG STATUS BLACK: Critical – Non-mission capable, non-repairable (Figure 6); discontinue use immediately. Remove tank from service as soon as possible. Store tank in a secure location and initiate a QDR (Appendix C) as soon as possible if less then 3 years from service date.



Figure 6: Example of non-repairable seam leakage. This tank was drained and taken out of service. BRAG status BLACK

4.4.3 <u>CORNERS</u>: Inspection of the four corners of the tank. It has been the militaries experience that some tank manufacturer's corners are more prone to leaking than others. The large majority of these corner leaks can be classified as a Class I leak (Figure 7). As a class I leak, this should not affect the BRAG status. After monitoring the leakage over time and the leaks accelerate to Class III/IV, the site supervisor must make a judgment call to elevate the BRAG status based on the severity of the leak. In all cases, note the location and deficiency on the BSTR

and determine on site if the situation warrants an elevation in BRAG status.



Figure 7: Example of a Class I leakage on a pointed corner tank. Some tanks have rounded corners. Placing a mechanical clamp may slow the leakage, but shall be cause to elevate the BRAG status and further monitoring.

- 4.4.4 <u>SEAM SEPARATIONS</u>: Seam separation: The overlapping fabric panels are no longer adhering to each other.
- BRAG STATUS AMBER: Minor Seam separation doesn't exceed more than a 1/3 of the width (Figure 8) of the overlap of the fabric panels and no signs of leakage (Class I).
  - Corrective action: Note the location and deficiency on the BSTR. Outline the separation using a permanent method to track if the separation increases and patch the seam.



Figure 8: Example of a minor Seam Separation (less than a 1/3 width of the overlap of the fabric panels) with no signs of leakage.

- BRAG STATUS RED: Major Seam separation exceeds more then a 1/3 but less then 2/3 of the width of the overlap of the fabric panels and no signs of leakage (Class I); Seam separation of any width and is showing signs of Class I/II leakage (Figure 9); Seam separation of any width and is showing signs of repairable Class III/IV leakage.
  - Corrective action: Note the location and deficiency on the BSTR. Outline the separation using a permanent method to track if the separation increases and patch the seam. If patching is not possible, tank status is Black.

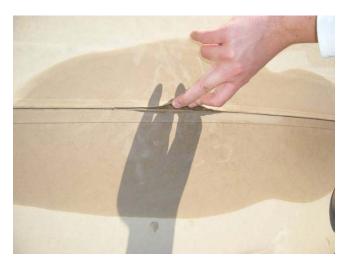


Figure 9: Example of a seam separation showing signs of Class I leakage.

- **BRAG STATUS BLACK:** Critical Seam is completely separated; Seam separation exceeds 2/3 of the width of the overlap of the fabric panels; Seam separation with a Class III/IV leakage that is not repairable.
  - Corrective action: Remove tank from service as soon as possible. Store tank in a secure location and initiate a QDR (Appendix C) as soon as possible if less then 3 years from service date.



(Figure 10: (NOTE: APPARENT SEAM SEPARATION) - Some manufacturers will use a protective tape seal the seam edge. This is not considered a seam separation where the tape is no longer is adhering to the tank. This condition warrants monitoring but shall not change the BRAG status until leakage is exhibited.)

- 4.4.5 <u>BLISTERS</u>: Blistering: A raised, circular area of no adhesion on a seam or panel showing evidence of trapped vapors or fuel.
- BRAG STATUS GREEN: FMC Blister is less than 1 inch in diameter with no signs of leakage.
  - Corrective action: Note the location and deficiency on the BSTR. Outline the blister using a permanent method to track if the blister increases in size.
- **BRAG STATUS AMBER:** Minor Blister is greater than 1 inch but less than 6 inches in diameter and no signs of leakage.
  - Corrective action: Note the location and deficiency on the BSTR Outline the blister in using a permanent method to track if the blister increases in size.
- **BRAG STATUS RED:** Major Blister is greater than 6 inches but less than 12 inches in diameter and no signs of leakage; multiple blisters of various sizes are present (Figure 11).
  - Corrective action: Note the location and deficiency on the BSTR. Outline the blister or blisters using a permanent method to track if the blister increases in size.



Figure 11: Example of major blistering. Multiple blisters of various sizes and filled with fuel.

- BRAG STATUS RED: Critical Blister is greater than 12 inches in diameter.
  - Corrective action: Remove tank from service as soon as possible. Store tank in a secure location and initiate a QDR (Appendix C) as soon as possible if less than 3 years from service date.
    - 4.4.6 <u>FITTINGS</u>: Includes Filler/Discharge Assembly, Drain Fitting Assembly, or Vent Fitting Assembly:
- **BRAG STATUS AMBER:** Minor: Signs of seepage around the Filler/Discharge Assembly, Drain Fitting Assembly, or Vent Fitting Assembly (Figure 12).
  - Corrective action: Follow the guidelines in Operator and Unit Maintenance
     Manual of the tank on checking the screws, flange, o-rings, plate and gaskets of

these assemblies. Note the location and deficiency on BSTR. If seepage continues follow the guidelines for leakage of fabric panels.



Figure 12: Example of Filler/Discharge Assembly (left) and Vent Fitting Assembly (right) showing signs of leakage. BRAG status Amber as shown, but track using fabric panel inspection criteria.

## 4.4.7 Intentionally left blank.

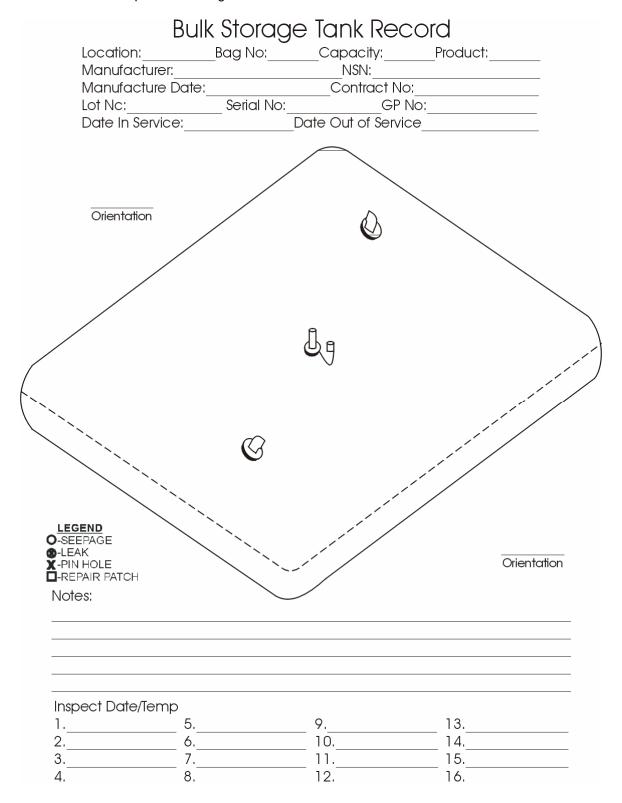
<u>SHELF LIFE</u>: Maintenance Advisory Message TACOM #99-007 and #06-048 establishes the shelf life. If a tank is kept in service beyond the shelf life due to mission requirements or supply issues, the tank will be elevated to Amber status.

APPENDIX A: Bulk Storage Tank Spreadsheet (BSTS). Example of an electronic record for a bulk fuel tank storage site. **(EXAMPLE)** 

	(EAAMPLE)																						
A1	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
A2	JP8	R	R	R	R	R	R	R	R	R	R												
A3	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
A4	JP8	R	R	R	R	R	R	R	R	R	R												
A5	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
A6	JP8	G	G	G	G	G	G	G	G	G	G												
A7	JP8	G	G	G	G	G	G	G	G	G	G												
A8	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
A9	JP8	G	G	G	G	G	G	G	G	G	G												
A10	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
B1	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
B2	JP8	G	G	G	G	G	G	G	G	G	G												
В3	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α			i									
B4	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α			i									
B5	JP8	G	G	G	G	G	G	G	G	G	G			i									
B6	JP8	R	R	R	R	R	R	R	R	R	R												
B7	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
B8	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
В9	JP8	G	G	G	G	G	G	G	G	G	G												
B10	JP8	G	G	G	G	G	G	G	G	G	G												
C1	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
C2	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
C3	JP8	G	G	G	G	G	G	G	G	G	G												
C4	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
C5	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
C6	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
C7	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
C8	JP8	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												
C9	JP8	G		G	G	G	G	G	G	G	G												
C10	JP9	G		G	G	G	G	G	G	G	G												
D1	DF2		G	G	G	G	G	G	G	G	G												
D2	DF2	G		G	G	G	G		G	G	G												
D3	DF2	Α	Α	Α	Α			Α			Α												
D4	DF2		Α	Α				Α	Α		Α												
D5	DF2		G	G	G	G	G	G	G	G	G												
D6	DF2		G	G	G	G	G	G	G	G	G												
M1	MG	G		G	G	G	G	G	G	G	G												
M2	MG		G	G	G	G	G	G	G	G	G												
М3	MG	G		G	G	G	G		G	G	G												
CF1	CFM		Α			Α		Α	Α	Α	Α												
CF2	CFM	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α												

BRAG ra	ting is based on the overall condition of the tank. The NOTES section shall include information that addresse	s immediate concerns.	
	BRAG RATING FOR FUEL TANK CONDITION		
Green	Shows no signs of unusual wear; no projected issues; continue normal use.	VERIFIED BY	
Amber	Signs of deterioration; not projected to fail; repair is possible option.		
Red	Displays evidence of failure with no repair options; reduce storage level to 50%.	NAME:	_
Black	NMC; Non-repairable; Discontinue use immediately.		
NOTE:	*When average temperature reaches above 115 degrees Fahrenheit, all bags will be inspected.	POSITION:	

APPENDIX B: Sample Bulk Storage Tank Record form.



#### Appendix B

#### Instructions for the Bulk Storage Tank Record (BSTR)

#### Purpose:

- 1. To capture overall condition of an individual fuel tank.
- 2. Data recorded feeds the Bulk Storage Tank Spreadsheet (BSTS) found at Appendix A.

### Responsibility:

1. The DoD representative or military site supervisor providing oversight of the bulk fuel site is responsible for completing and maintaining the record.

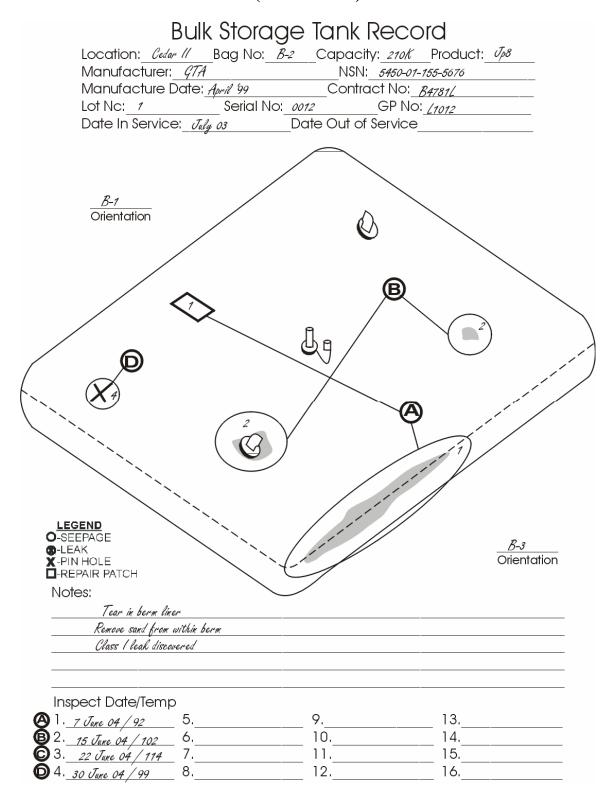
#### Instructions:

- 1. A BSTR will be completed and maintained for all tanks in service.
- 2. The BSBR will be updated as prescribed in this document or at commander's prerogative. All changes to the condition of the tank will be annotated.
- 3. Information for the BSTR heading will be obtained from the data plate (Figure A-1) located on the tank. Record all information in ink.
- 4. Mark the BSTR with the tank's orientation. Base it on a fixed object such as another tank or compose direction.
- 5. Use the legend located on the BSTR to provide a snapshot of current conditions. This is to be done in pencil.
- 6. Seepage along large areas can be addressed with a large oval circle.
- 7. Annotate berm liner deficiencies.
- 8. Document the initial inspection as well as all changes to the tanks condition with the date, This is necessary for documenting deterioration and repairs over time.



Figure A-1: Example of a Data Plate on a 50,000 gallon fuel tank. This is also example for a QDR (Appendix C) since the information was not labeled correctly using a permanent method by the manufacture. This information can also be found stenciled on the packaging crate.

# (SAMPLE)



### **Bulk Storage Tank Record (BSBR)**

The intent is to have the BSTR filled out consistently throughout the Theater and Corp areas of operations. The following scenarios are provided with a properly filled out BSTR. Please note, the information you provide on the BSTR will be used by the MACOM of petroleum operations to monitor performance of deployed bags and will provide useful data to improve the quality of storage bags deployed in the future.

## (Refer to the example above.)

- A. 7 June 04; A "baseline" inspection was conducted on tank B-2. The heading was filled out with the information contained in the data plate. The bags orientation is marked by identifying the tanks on either side. The inspection revealed seepage along the side seam and a previous repair. The date was annotated on line 1 under the "Notes" section along with the temperature for the day.
- B. 15 June 04; A subsequent inspection revealed two new occurrences of seepage. The diagram was updated to reflect the location. The date was annotated on line 2 under the "Notes" section along with the temperature for the day.
- C. 22 June 04; A subsequent inspection revealed no new deficiencies on the bag. No changes made to the diagram. The date and temperature were noted on line 3.
- D. 30 June 04; A subsequent inspection revealed a Class I leak on the tank. The diagram was updated to reflect the location. The date was annotated on line 4 under the "Notes" section along with the temperature for the day.

Note: New deficiencies must be reported to the bulk storage site supervisor so that the appropriate corrective actions can be taken.

APPENDIX C



## **Electronic Deficiency Report**

Field *Help* is available from the number next to the field. **Click on the field number for instructions**. Some fields displayed in this report are required entry fields (identified with a \*). If this information is not completed, you will be prompted to complete the missing information in the identified field before your submission is accepted into EDRS. Upon successful submission, you will receive a copy of this report for your records via the e-mail address submitted in form Field #1b. Therefore, e-mail address accuracy is important.

To process this form, please read these instructions:

- 1. Indicate if the report is a PQDR, EIR, or WCA.
- 2. Indicate if the report is Category I or II.
- 3. Block 1a: Fill in your office/depot mailing address here.
- 4. Block 1b: Fill in your name, phone number, and your e-mail address.
- 5. Block 3: Enter a valid report control number.
- 6. Complete one of the following:
  - o Block 5: Enter a valid AMC NSN OR
  - Either an end item NSN in block 16a or a next higher assembly NSN in block 16b OR
  - Block 8: A part number if no NSN can be provided.
- 7. Block 11: Indicate if the item was new or repaired/overhauled.
- 8. Block 21: Select an Action/Disposition Choice.
- 9. Block 22: Additional description of the problem.
- 10. Also, if you plan to mark this report as an initial failure, please mark the Initial Failure field and select the location nearest to you. When the report has been successfully submitted, a list of LARs for that location will be displayed. Select one of the LARs from the list and a copy of the report will be sent to the LAR.

Finally, **please use the TAB key** to navigate through each block in the form. If you use the **Return/Enter** key, the program will ask you if you want to process the report. If yes, press **OK**; otherwise, press **Cancel**.

Electronic Deficiency Report	
★ Select the report as a PQDR, EIR, or WCA:	
Product Quality  Deficiency Report (PQDR)  Equipment Improvement  Recommendation (EIR)  Warranty Clair  Action (WCA)	
Category I Category II	
Credit Replacement	
Initial Failure C Yes C No	
NOTE on Marking Report as an Initial Failure	
LSE Not Used Office:	•
DSN:	
FAX:	
	APPENDI
1a. ★ Originating Address:	A11151V171

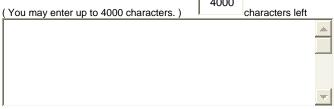
APPENDIX C

Organization:		
Street/Office:		
City:	State:	
Zip Code:	DODAAC:	
1b. Originator's Na ★ First Name:	ame, Phone, E-Mail and Fax	
🖈 Last Name:		
Duty Phone:		
	(Indicate if DSN by entering DSN in front of number.)	
★ E-Mail:		
Fax:		
	(Indicate if DSN by entering DSN in front of number.)	
Local QDR Coordinator's Email Address: 2. Screening Point "This system will Army."	(Separate individual emails with commas)	the responsible agency within the
3. ★ Report Contr	rol Number:	
<del>_</del>	ncy Discovered:	
		{Use mm/dd/yyyy format} {If there is no NSN you must enter the part number in block 8.}
O Nicosa colotino		
6. Nomenclature:		
7. Manufacturer: Name:		
City:		
State:		
CAGE Code DODAAC Repair Site Code		<u></u>
ISM Repair Point		APPENDIX C
8. Manufacturer's Number:	Part	

9. Serial/Lot/Batch No.
10. Contract Information "Filling in Block 10 will expedite investigation and disbursement of credit"
Contract Number:
"Original" Requisition Number: GBL Number
Turn-In Document Number
New  Repaired or Overhauled?
12. Date Manufactured/ Repaired/Overhauled:  [Use mm/dd/yyyy format]
13. Operating Time at Failure: None
14. If you are a contractor:  Was this item provided to you as GFM?  No
15. Quantity Information  Received: 0 Deficient: 0 In Stock:
Deficient Item Works on/with:  16a. End Item End Item Type/Model/Series: End Item Serial Number End Item NSN NHA National Stock Number (NSN): End Item Part Number NHA Part Number
17. Unit Cost:
18. Estimated Repair Cost:
19. a. Is the equipment under warranty?
b. Expiration Date:
20. WUC/EIC: (Navy and Air Force Only):
21. * Action/Disposition: 23. Location:
Holding Exhibit for <b>60</b> days.
Returned to Stock
Disposed of
Repaired
Other (Explain in Details)

## 22. \* Details:

(Describe, to best ability, what is wrong, how and why, circumstances prior to difficulty, description of difficulty, cause, action taken including disposition, rerequisition, and recommendations.)



If you wish to send a copy of your submission to others, please enter their e-mail addresses here. Separate each e-mail address with commas:

each e-mail address with commas.											
Submit Report	Reset Form										