Attachment B - Explanation of Chamges

Changed Page	Revision Level *	Explanation of Changes
Title Page	8S	This page was modified to reflect the current SAR revision level.
Table of Contents Page i	8	This page was modified to reflect that paragraphs 2.7 and 2.7.1 were moved from page 2-12, to page 2-11. This page was modified to relfect the current SAR revision level
Table of Contents Page iv	8	Added "Figure 4-1 "Containment Boundary" to list of tables and figures.
Glossary of Terms Page v	8S	Added to description of Primary Lid to read: "....This lid (excluding the portion inside the secondary wall) is a part of the "containment boundary". Changed "Secondary Lid" to read: "Secondary/Upper Lid". Added definitions for "Secondary/Upper Wall" and "Secondary/Upper Lid Flange" to Glossary of Terms. Moved "Outer Vessel", "Containment Vessel", "Studding Outlet", and "UN" descriptions to page vi of the Glossary of Terms. This page was modified to reflect the current SAR revision level.
Glossary of Terms Page vi	8S	Added "Studding Outlet", "UN", "Outer Vessel", and "Containment Vessel" descriptions to page vi of the Glossary of Terms. No changes were made to these descriptions. Changed "Containment Boundary" description to read: "The containment vessel, studding outlet, primary lid inner seal and bolts, primary lid (excluding the portion inside the secondary/upper wall), secondary/upper wall, secondary/upper lid inner seal and bolts and secondary/upper lid". Reason: To clarify/better define the Containment Boundary. This page was modified to reflect the current SAR revision level.

Attachment B - Explanation of Chamges

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1-2	8S	Changed paragraph 1.2.1.1 Overall Construction....to read: "....The package is designed to be leak tight (maximum allowable leak rate of 10^{-7} ref-cm^3/sec) at the primary closures. The containment vessel's primary closures are at the primary and secondary lids. The primary lid is sealed using a double O-ring and is secured by sixteen 5/8" stainless steel studs. The primary lid includes a fill port consisting of a valve and stainless steel threaded (plugged) quick-disconnect fittings. The secondary lid assembly provides a sealed enclosure around the valving and fittings on the primary lid . The secondary lid is sealed using a double O-ring and is secured by twelve 5/8" stainless steel bolts and nuts....." Reason: Clarification to overall construction of packaging. This page was modified to reflect current SAR revision level.
1-3	8S	Changed first sentence of paragraph 1.2.1.6 containment to read: "The containment boundary is defined by the containment vessel, studding outlet, primary lid inner seal and bolts, primary lid (excluding the portion inside the secondary/upper wall), secondary/upper wall, secondary/upper lid inner seal and bolts and secondary/upper lid". Reason: To clarify/better define the Containment Boundary. This page was modified to reflect the current SAR revision level.
1-7 (Appendix 1.3.1 cover sheet)	8	This page was modified to reflect the current SAR revision level.
Appendix 1.3.1 Drawing LR-SAR Revision 9, sheet 1 of 4	8	Removed redundant draw pipe to vessel gap dimension of 3/8" ± 1/8" shown in the sectional view of the Liqui-Rad Transport Unit. Reason: The draw pipe dimension is addressed on sheet 3 of drawing.
Appendix 1.3.1 Drawing LR-SAR Revision 9, sheet 2 of 4	8	Sheet 2 of this drawing was modified to reflect latest drawing revision only. No changes were made to sheet 2 of 4.

Attachment B - Explanation of Chamges

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Appendix 1.3.1 Drawing LR-SAR Revision 9, Sheet 3 of 4	8	Changed: "Pipe 1"Ø Sch 80 SS" to read: "Draw Pipe 1"Ø Sch 80 SS" in the containment vessel section view. Revised draw pipe to vessel gap dimension from: "3/8" ± 1/8" to read: "1/4" min." in the containment vessel section view. Added 1/8" min. dimension to length of draw pipe shown in fill port detail "D" of drawing. Reason: The draw pipe length is variable in the revised design.
Appendix 1.3.1 Drawing LR-SAR Revision 9, Sheet 4 of 4	8	Sheet 4 of this drawing was modified to reflect latest drawing revision only. No changes were made to sheet 4 of 4.
2-i Table of Contents	8	This page was modified to reflect that paragraphs 2.7 and 2.7.1 moved from page 2-12, to page 2-11 This page was modified to reflect the current SAR revision level.
2-1	8	Added to paragraph 2.1.2 design criteria to read: "The containment boundary is defined as the containment vessel, the primary lid (excluding the portion inside the secondary wall) and seal, and the secondary lid and seal". Reason: To clarify/better define the containment boundary. This page was modified to reflect the current SAR revision level.
2-7	8	Added to paragraph 2.6.5 Vibration to read: "Vibration due to normal transport conditions has no measureable effect on the LR safety-related components". Reason: Transport vibration may affect some draw pipe components. This page was modified to reflect the current SAR revision level.
2-11	8	This page was modified to add paragraphs 2.7 and 2.7.1 which were moved from page 2-12. The content (text) of these paragraphs has not been changed. This page was modified to reflect the current SAR revision level.

Attachment B - Explanation of Chamges

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2-12	8	The following has been added to the end of paragraph 2.7.1 prototype testing: "The draw pipe length is variable in the revised design, but the previous tested configuration with draw pipe is still valid and conservative since the weight of the previous tested configuration is slightly higher than the revised configuration and the tested draw pipe length is maximum and hence no additional drop test are required. The leak test is also unnecessary since the draw pipe is not part of containment boundary". Reason: The draw pipe length is variable in the revised design. This page was modified to reflect the current SAR revision level.
4-i Table of Contents	8	This page was modified to add "Figure 4-1 Containment Boundary". This page was modified to reflect the current SAR revision level.
4-1	8S	Added to paragraph 4.1 Containment Boundary to read: "The containment boundary is depicted in Figure 4-1 and includes the following components: containment vessel, studding outlet, primary lid inner seal and bolts, primary lid (excluding the portion inside the secondary/upper wall), secondary/upper wall, secondary/upper lid inner seal and bolts and secondary/upper lid". Reason: To clarify/better define the containment boundary. This page was modified to reflect the current SAR revision level.
4-8 New Page	8S	This page was added (Figure 4-1) to depict the Containment Boundary. This page defines the current SAR revision level.
7-3	8S	Changed paragraph 7.2 g, from: "....venting of the containment boundary...." to read: "....venting of the containment vessel...." Added to paragraph 7.2.h to read: "Unload the containment vessel in accordance with the Receiver's operating procedures. A temporary draw pipe, of smaller diameter than the permanent draw pipe, may be inserted through the fill port identified in Detail D of drawing LR-SAR to unload the containment vessel. If the permanent draw pipe is suspected of being damaged, such as by experiencing reduced or no flow when unloading through the permanent draw pipe, then the package shall be emptied using the temporary draw pipe mentioned above, and the package maintained per SAR section 8.2(g)". This page was modified to reflect the current SAR revision level.

Attachment B - Explanation of Chamges

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8-2	8S	Added new paragraph 8.2, subparagraph "g" to read: "Check that the weld of the draw pipe to the primary lid and the draw pipe itself are in good condition, with no cracks; repair if necessary" The existing subparagraph "g", changes to subparagraph "h" The existing subparagraph "h", changes to subparagraph "i" The existing subparagraph "i", becomes subparagraph "j" This page was modified to reflect the current SAR revision level.
		***NOTE:** Revision level "8" denotes SAR changes submitted previously as SAR "Revision 8, August 2013". Revision level "8S" denotes the latest revision of the SAR being submitted as "Revision 8 as Supplemented, June 2014". This revision incorporates the revision level 8 changes along with additional changes required due to R.A.I. (Request for Additional Information) responses.