

**Committee of Experts on the Transport of Dangerous Goods  
and on the Globally Harmonized System of Classification  
and Labelling of Chemicals**

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**Sub-Committee of Experts on the Transport of Dangerous Goods**

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Item 6 of the provisional agenda

**New proposals for amendments to the Model Regulations  
on the Transport of Dangerous Goods**

**Supplemental Data to Support 2016/79 (Lead lining testing  
requirements for bromine portable tanks)**

**Transmitted by the Expert from the United States of America**

**Summary**

1. The attached provides a summary of data reviewed to support the proposal in ST/SG/AC.10/C.3/2016/79 for a three month authorization to transport portable tanks after emptying but before cleaning for purposes of performing the lead lining inspection required by portable tank special provision TP 10. As noted in 2016/79, annual inspection reports covering a 5 year period were obtained for 10 tanks in dedicated bromine service, and a further 5 lead lining inspection reports were obtained for tanks in dedicated bromine service that had been inspected after a year but no more than 15 months after the date of the last inspection. Each of these reports contains test results on the lead liner giving at least 67, but up to 1164, separate readings of lead lining thickness. An analysis of the data provided revealed that for the 10 portable tanks inspected within the one year period, the percentage of readings falling below 5 mm was less than 2%. For the 5 tanks that were inspected between 12 months but before 15 months the percentage of readings falling below 5 mm was less than 1%. It should be noted that for the few readings that were below 5 mm, the majority were above 4 mm and no readings were below 2 mm.

### Summary of Safety Data Reviewed

<b>Tanks tested within 1 year inspection period</b>				
Tank Number/Year of inspection	Total # of readings	# of readings below 5 mm	Readings below 5 mm	Location if known
<b>Tank A</b>				
2016	448	0		
2015	448	0		
2014 N/A				
2013	67	0		
2012	67	1	4.79	Manlid
2011	67	1	4.91	Manlid
<b>Tank B</b>				
2016	851	32	4.87,4.75, 4.19, 4.29, 4.65, 4.65, 4.19, 3.02, 2.37, 3.05, 3.25, 3.0, 4.22, 3.96, 4.4, 4.85, 4.06, 3.94, 4.75, 3.33,4.06, 4.7,4.4, 4.55, 2.34, 3.61, 4.62, 4.22, 4.98, 4.93, 4.3, 4.98	
2015 N/A				
2014	68	0		
2013	68	2	3.81, 4.49	Manway & Manlid
2012	68	0		
2011	68	0		
<b>Tank C</b>				
2016	686	6	4.8, 4.83, 4.88, 4.8, 4.95	One in shell rest in Manway and Manlid
2015 N/A				
2014	67	2	4.31, 4.37	Manway and Manlid
2013	67	0		
2012	67	0		
2011	67	0		
<b>Tank D</b>				
2016	702	28	4.9, 4.75,4.04, 4.7,4.95, 4.95, 4.62, 4.44, 4.57, 4.57, 4.32, 4.52, 4.65, 4.98, 4.65, 4.83, 4.47, 3.58, 4.8, 3.66, 4.95, 4.67, 4.93, 4.88,4.88, 4.85, 4.93, 4.06	
2015 N/A				
2014	733	6	3.99, 3.73, 4.67, 4.98, 4.72, 4.78	
2013	66	0		
2012	67	0		
2011	67	2	4.56, 4.87	Manlids

<b>Tank E</b>				
2016	431	0		
2015 N/A				
2014	67	2	4.98, 4.56	Manlids
2013	67	0		
2012 N/A				
2011	67	7	4.09, 4.3, 4.65, 2.59, 2.73, 4.41, 3.23	Manway and Manlids
<b>Tank F</b>				
2016	521	2	4.88, 4.90	Shell and Manlid
2015 N/A				
2014	1164	3	4.93, 4.75, 4.67	Sump
2013	67	0		
2012	67	4	2.62, 2.62, 3.59, 2.22	Manlid
2011 N/A				
<b>Tank G</b>				
2016	456	11	4.83, 4.85, 4.67, 4.90, 4.75, 4.62, 4.90, 4.55, 4.4, 4.72, 4.83	
2015	658	17	4.85, 4.24, 4.88, 4.7, 4.14, 4.85, 4.83, 4.90, 4.95, 4.95, 4.78, 4.2, 4.90, 4.67, 4.22, 4.78, 4.98	
2014 N/A				
2013	67	2	4.6, 4.36	Manlid
2012	67	5	4.62, 4.42, 4.62, 4.59, 4.42	Manlid and Manway
2011 N/A				
<b>Tank H</b>				
2016	598	7	4.93, 4.88, 4.67, 4.95, 4.95, 4.62, 4.67	
2015	484	14	4.32, 4.55, 4.44, 4.42, 4.44, 4.57, 4.98, 4.32, 4.04, 4.83, 4.47, 4.95, 4.22, 4.95	
2014	67	0		
2013	67	1	4.83	Manlid
<b>Tank I</b>				
2016	502	1	4.01	
2015	451	0		
2014 N/A				
2013	67	0		

<b>Tank J</b>				
2016	639	8	4.55, 4.57, 4.95, 4.47, 4.01, 4.24, 4.75, 4.83,	
2015	483	0		
2014 N/A				
2013	67	0		

<b>Tanks tested between 12 and 15 months</b>				
Tank Number	Total # of readings	# of readings below 5 mm	Readings below 5 mm	Location if known
<b>Tank A</b>				
2015	67	0		
<b>Tank B</b>				
2015	67	1	4.77	Manway
<b>Tank C</b>				
2015	67	2	4.79, 4.93	Manlind and Manway
<b>Tank D</b>				
2015	67	0		
<b>Tank E</b>				
2015	67	0		