




**SAFKEG-LS 3979A**  
**SAR Update Matrix for Addition of Extra Contents**

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	S H Bryson		R A Vaughan
Approved		Issue Date	
	R A Vaughan		
Croft Associates Ltd, F4 Culham Science Centre, Abingdon, Oxfordshire, OX14 3DB. 01865 407740			

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## 1 Notes on methodology and content

This Update Matrix (CTR 2015/06) details the changes in the SAFKEG-LS 3979A SAR in updating from Rev 4 to Rev 5.

The update to SAR Rev 5 is to allow a Bi-210/Po-210 Target, to be carried in the steel insert, as listed in Contents Type 3. It also allows the correction of a minor typographical error on a licensing drawing and the replacement of keg studs during maintenance.

This Update Matrix (CTR 2015/06) provides the following.

- Justification for the changes in the SAFKEG-LS 3979A SAR in updating from Rev 4 to Rev 5
- Details of SAR changes - List of all changes to the SAR - Table 1
- Question and Response Matrix Table – Table 2 [Blank at this stage]
- List of SAR page changes [Appendix B]

It is proposed that this document (CTR 2015/06) will be updated to include responses to any further questions and will thereby fully document all issues including any questions and responses for the entire SAR update.

## 2 Justification for the changes in the SAFKEG-LS 3979A SAR in updating from Rev 4 to Rev 5

MURR wish to carry irradiated Bi-210/Po-210 targets in the stainless steel insert. The update to SAR Rev4 is to allow the inclusion of Bi-210 and Po-210 to the contents list of contents Type 3. While the SAR is being updated the opportunity, to correct a minor typographically error on one of the licensing drawings and clarify the replacement of damaged keg studs in Section 8, is taken.

### 3 SAR Changes

This table contains notes on all the SAR Page Changes and supporting Document Changes for Rev 5 (from Rev 4).

**Table 1 Summary of SAR Page Changes and Supporting Document Changes for Rev 5**

Summary of SAR Page Changes and Supporting Document Changes for Rev 5			
SAR Page or Doc	Location	Change	Reason for Change
Chapter 0 - Contents			
All pages	Header	Page Rev status amended to Rev 5  All changes are shown in red and sidelined.	Changes required solely to record the current issue status of SAR pages and references.
Page 0-2	Table	Name amended	Editorial/Update.
Page 0-2	Date box	Date amended	Update.
Chapter 1 - General Information			
Page 1-27	Table	Page Rev status amended to Rev 5  Bi-210 and Po-210 added to the contents list.	Allows MURR to ship Bi-210/Po-210 irradiated targets.
Chapter 2 - Structural Evaluation			
None		None	
Chapter 3 - Thermal Evaluation			
None		None	
Chapter 4 - Containment Evaluation			

<b>Summary of SAR Page Changes and Supporting Document Changes for Rev 5</b>			
<b>SAR Page or Doc</b>	<b>Location</b>	<b>Change</b>	<b>Reason for Change</b>
None		None	
Chapter 5 - Shielding Evaluation			
5-12	Table 5-5	Page Rev status amended to Rev 5  Bi-210 and Po-210 added to the table	Allows MURR to ship Bi-210/Po-210 irradiated targets.
5-12a	Table 5-5	Page Rev status amended to Rev 5  Extra page	Accommodates the increased size of table due to addition of nuclides.
Chapter 6 - Criticality Evaluation			
None		None	
Chapter 7 - Operating Procedure			
None		None	
Chapter 8 - Acceptance Tests & Maintenance Program			
Page 8-7	Section 8.2.3.2	Page Rev status amended to Rev 5  Addition of the use of an equivalent threadlocker to position the studs.  Allow the replacement of any damaged keg closure studs	Loctite 270 is difficult to source in the US so we have allowed the purchase of an equivalent threadlocker.  The keg studs can be replaced if damaged in accordance to section 8.2.3.2 (8), however MURR requested that we clarified the replacement of studs by adding this extra sentence.

#### 4 NRC Questions and Croft Responses

This section is provided to document all NRC Questions and Croft Responses.

**Table 2 - Question and Response Matrix Table**

<b>Q#</b>	<b>Review Question</b>	<b>Croft Response</b>	<b>Changed Item</b>
	None at this stage.		

**Appendix A          New or edited SAR pages provided in the SAR at Rev 5**

<b>Chapter</b>	<b>Pages</b>
0	All (0-1 to 0-13)
1	1-27
5	5-12, 5-12a
8	8-7

**Appendix B New or edited Supporting Documents provided in the SAR at Rev 5**

Related SAR Section or Doc	Document Reference		Title
Chapter 1 - General Information			
Documents in Section 1.3.3, Licensing Drawings			
Update	1C-6040	G	Cover sheet for Safkeg-LS design No. 3979A (licensing drawing)
Update	0C-6042	E	Keg design no.3979A (licensing drawing)
Documents in Section 1.3.4 Supporting Documents			
Update	PCS 036	D	Package Contents Specification for Safkeg-LS - Package Design No 3979A
Chapter 2 – Shielding Evaluation			
Documents in Section 5.5.2			
Update	CTR 2009/22	B	SAFKEG LS 3979A: Package Activity Limits Based on Shielding