

**LSU Health Sciences Center-Shreveport  
Radiation Oncology  
Proc. 19.9.0.C**

**QA of Remote Afterloading Brachytherapy Unit**

**Policy:**

This policy is to provide guidelines to follow when performing QA on Remote afterloading Brachytherapy Units, and the frequency each test is to be completed.

**Procedure:**

<u>Frequency</u>	<u>Test</u>	<u>Tolerance</u>
Each treatment day	Room safety door interlocks, lights, and alarms	Functional
	Console functions, switches, batteries, printer Visual inspection of source guides	Functional Free of kinks & attached Autoradiograph
Weekly	Verify accuracy of ribbon preparation	
	Accuracy of source and dummy loading (dummies used for spacing and/or simulation verification) Source positioning	1mm 1mm
At each source change or quarterly	Calibration	3%
	Timer malfunction	1%
	Check accuracy of source guides and connections Mechanical integrity of applicator by x-ray if appropriate)	1mm Functional
Annual	Dose calculation algorithm (at least one standard source configuration for each isotope) Simulate emergency condition Verify source inventory	3%, 1mm

Written: October 2007  
Reviewed: December 2008

