Hall: A

RADIATION BUDGET FORM

Exp. # E12-17-004 **rev: 0** **run dates: 2020** **name of liaison: Brad Sawatzky**

setup number			**1**	**2**	
beam	energy	GeV	**4.4**	**4.4**	***totals:***
	current	uA(CW)	**30.0**	**30.0**	
radiator	element				
	thickness	mg/cm2			
	dist. to pivot	m			
	Z		**0**	**0**	
	A		**0**	**0**	
exp't target	element		**D**	**Al**	
	thickness	mg/cm2	**2435**	**935**	
	dist. to pivot	m	**0.0**	**0.0**	
	Z		**1**	**13**	
	A		**2**	**27**	
cryo tgt window	element		**Al**		
	thickness	mg/cm2	**83**		
	dist. to pivot	m	**0.0**		
	Z		**13**	**0**	
	A		**27**	**0**	
critical window	radius	cm	**13.8**	**13.8**	
	dist. to pivot	m	**5.10**	**5.10**	
scattering weighting factor			**0.50**	**0.50**	
time	run time (100% eff.)	hours	**110**	**10**	**120**
		days	**4.6**	**0.4**	**5.0**
	installation time	hours			**0**
		days	**0.0**	**0.0**	**0.0**
dose rate at the fence post (run time)	method 1	urem/hr	**1.52**	**1.32**	
	method 2	urem/hr			
	conservative	urem/hr	**1.52**	**1.32**	
dose per setup		urem	**167**	**13**	**179.86**
% of annual dose budget		%	**1.7**	**0.1**	**1.7986**

% of allowed dose for the total time	**131.3**
% of allowed dose for the run time only	**131.3**

If > 200%, discuss result with Physics Research EH&S officer

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