

Hall: A

RADIATION BUDGET FORM

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Exp. # GMn

rev: 0

run dates: 2019

name of liaison: Eric Fuchey

E12-09-016

setup number		18	19	20	21	22	23	24	25	26	27			
beam	energy	GeV	8.8	11.0	11.0	11.0	4.4	4.4	4.4	4.4	4.4	4.4	totals:	
	current	uA(CW)	30.0	30.0	55.4	30.0	20.0	20.0	60.0	20.0	20.0	60.0		
radiator	element						Cu	Cu		Cu	Cu			
	thickness	mg/cm2					772	772		772	772			
	dist. to pivot	m					-0.15	-0.15		-0.15	-0.15			
	Z			0	0	0	0	29	29	0	29	29	0	
	A			0	0	0	0	64	64	0	64	64	0	
exp't target	element		Al	D	H	Al	H	Al	H	H	Al	H		
	thickness	mg/cm2	935	2435	1062	935	1062	935	1062	1062	935	1062		
	dist. to pivot	m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	Z			13	1	1	13	1	13	1	1	13	1	
	A			27	2	1	27	1	27	1	1	27	1	
cryo tgt window	element			Al	Al		Al		Al	Al		Al		
	thickness	mg/cm2		83	83		83		83	83		83		
	dist. to pivot	m		0.0	0.0		0.0		0.0	0.0		0.0		
	Z			0	13	13	0	13	0	13	13	0	13	
	A			0	27	27	0	27	0	27	27	0	27	
critical window	radius	cm	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8		
	dist. to pivot	m	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10		
scattering weighting factor			0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		
time	run time (100% eff.)	hours	4	100	13	8	12	2	3	24	2	6	543	
		days	0.2	4.2	0.5	0.3	0.5	0.1	0.1	1.0	0.1	0.3	22.6	
	installation time	hours											0	
		days	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
dose rate at the fence post (run time)	method 1	urem/hr	1.58	1.94	0.59	1.65	1.57	2.53	0.61	1.57	2.53	0.61		
	method 2	urem/hr												
	conservative	urem/hr	1.58	1.94	0.59	1.65	1.57	2.53	0.61	1.57	2.53	0.61		
dose per setup		urem	6	194	8	13	19	5	2	38	5	4	676.46	
% of annual dose budget		%	0.1	1.9	0.1	0.1	0.2	0.1	0.0	0.4	0.1	0.0	6.7646	
%												109.13		
%												109.13		
If > 200%, discuss result with Physics Research EH&S officer														

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