

Hall: **A****RADIATION BUDGET FORM**

page: 1 of 2

Exp. # **GMn**rev: **0**run dates: **2019**name of liaison: **Eric Fuchey****E12-09-019**

setup number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
beam	energy	GeV	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	6.6	6.6	6.6	8.8	8.8	8.8	8.8	8.8	
	current	uA(CW)	19.2	52.4	30.9	19.2	39.0	30.9	24.0	58.1	24.0	24.0	52.5	22.5	30.0	52.5	30.0	30.0	53.3	
radiator	element																			
	thickness	mg/cm2																		
	dist. to pivot	m																		
	Z		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
exp't target	element		D	H	Al	D	H	Al	D	H	Al	D	H	Al	D	H	Al	D	H	
	thickness	mg/cm2	2435	1062	935	2435	1062	935	2435	1062	935	2435	1062	935	2435	1062	935	2435	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Z		1	1	13	1	1	13	1	1	13	1	1	13	1	1	13	1	1	
	A		2	1	27	2	1	27	2	1	27	2	1	27	2	1	27	2	1	
cryo tgt window	element		Al	Al		Al	Al		Al	Al		Al	Al		Al	Al		Al	Al	
	thickness	mg/cm2	83	83		83	83		83	83		83	83		83	83		83	83	
	dist. to pivot	m	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
	Z		13	13	0	13	13	0	13	13	0	13	13	0	13	13	0	13	13	
	A		27	27	0	27	27	0	27	27	0	27	27	0	27	27	0	27	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	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	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	0.50	0.50	0.50	0.50	0.50	0.50	0.50	
time	run time (100% eff.)	hours	30	69	7	30	24	7	30	32	6	30	8	4	24	8	3	48	9	
		days	1.3	2.9	0.3	1.3	1.0	0.3	1.3	1.3	0.3	1.3	0.3	0.2	1.0	0.3	0.1	2.0	0.4	
	installation time	hours																		
		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	0.0	0.0	0.0	0.0	0.0	0.0
dose rate at the fence post (run time)	method 1	urem/hr	0.97	0.53	1.35	0.97	0.39	1.35	1.21	0.59	1.05	1.37	0.53	1.10	1.87	0.55	1.58	1.87	0.56	
	method 2	urem/hr																		
	conservative	urem/hr	0.97	0.53	1.35	0.97	0.39	1.35	1.21	0.59	1.05	1.37	0.53	1.10	1.87	0.55	1.58	1.87	0.56	
dose per setup		urem	29	36	9	29	9	9	36	19	6	41	4	4	45	4	5	90	5	
% of annual dose budget		%	0.3	0.4	0.1	0.3	0.1	0.1	0.4	0.2	0.1	0.4	0.0	0.0	0.4	0.0	0.0	0.9	0.1	

date form issued:

August 8, 2017

authors: P.Degtiarenko