

Fig.1. To dose rate calculation from JDisk.

Table 1

Equivalent dose rate resulted from JD for T= 100d, t=1d

R/Z, cm	dR\dz	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						1445.0	1074.9	640.6	304.1	142.7	84.9	46.5	26.4	16.9	11.7	8.6
5- 15	10						1449.8	1027.9	586.6	279.0	130.9	76.4	42.4	23.9	15.5	10.7	7.9
15- 30	15						842.3	583.7	393.7	220.9	116.4	68.8	39.0	21.9	14.3	10.1	7.4
30- 43	13						295.0	243.6	214.4	158.7	98.4	63.7	37.0	21.2	14.3	10.2	7.6
43- 53	10						115.8	114.9	118.3	110.4	82.1	58.0	35.5	19.9	13.8	10.3	7.7
53	0	163.9	142.6	130.3	123.1	88.2	50.2	75.7	90.5	92.4	73.1	54.4	34.9	19.4	13.5	10.3	7.8
53- 60	7	140.6	109.6	91.3	79.0	52.7	35.7	61.4	77.5	82.2	67.1	51.6	34.4	19.0	13.1	10.1	7.8
60- 75	15	86.2	76.7	68.5	56.2	38.9	31.7	44.3	52.9	59.4	55.0	42.9	32.5	18.7	11.9	9.4	7.7
75- 100	25	39.1	39.8	39.7	33.8	26.2	23.8	28.8	32.7	35.5	36.6	33.4	24.9	20.0	11.3	7.7	6.7
100- 125	25	18.0	19.7	21.5	20.4	17.5	16.8	18.7	22.0	21.2	23.6	22.5	18.8	14.6	11.1	7.5	4.7
125- 150	25	12.3	12.8	13.9	13.5	12.2	12.0	13.1	14.2	14.0	14.9	14.9	12.5	9.3	10.7	7.6	5.4
150- 175	25	9.3	9.4	9.9	9.4	8.8	9.0	9.5	10.6	10.6	11.6	12.8	12.2	11.1	9.2	7.4	5.7
175- 200	25	6.7	6.7	7.7	6.9	6.5	6.6	7.0	8.0	8.6	9.6	11.1	11.0	10.8	7.3	3.8	3.6
200- 225	25	5.1	5.0	5.5	5.4	5.1	5.1	5.4	6.4	7.1	7.2	7.6	7.2	6.7	5.4	2.8	2.4

Table 1, (continuation)

Equivalent dose rate resulted from JD for T= 100d, t=3d

R/Z, cm	dR\dz	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						939.9	704.7	409.8	190.3	86.5	51.9	28.8	15.8	10.1	6.9	5.1
5- 15	10						949.7	666.2	371.1	173.3	79.4	46.2	26.1	14.3	9.2	6.4	4.7
15- 30	15						511.4	354.7	240.0	136.0	70.9	41.6	23.6	13.4	8.7	6.0	4.4
30- 43	13						122.2	126.6	124.2	93.9	59.2	38.8	22.2	13.0	8.7	6.2	4.6
43- 53	10						78.7	67.6	67.5	65.3	49.1	34.8	21.2	12.1	8.6	6.3	4.7
53	0	96.5	93.2	91.8	89.9	66.9	36.9	46.0	51.8	54.3	43.7	32.8	21.0	11.5	8.3	6.3	4.8
53- 60	7	62.2	61.8	60.3	56.0	38.1	24.9	37.4	44.4	48.1	39.9	31.0	20.8	11.2	8.0	6.2	4.8
60- 75	15	35.9	40.7	43.5	38.6	27.1	22.0	28.0	31.7	34.8	32.7	25.4	19.6	11.0	7.1	5.8	4.7
75- 100	25	26.1	26.4	25.9	22.6	17.7	15.9	18.6	20.1	21.2	21.7	19.8	14.7	12.2	6.7	4.6	4.0
100- 125	25	13.8	14.6	15.2	14.0	11.9	11.4	12.4	14.0	13.2	14.2	13.5	11.3	8.6	6.5	4.4	2.8
125- 150	25	9.6	9.8	10.2	9.6	8.3	8.2	8.7	9.1	9.0	8.9	8.9	8.3	7.7	6.4	4.8	3.5
150- 175	25	7.3	7.2	7.3	6.8	6.3	6.4	6.6	6.8	6.8	7.5	8.1	7.4	6.8	6.0	5.2	3.9
175- 200	25	5.2	5.2	5.7	5.0	4.5	4.7	5.0	5.5	5.6	6.3	7.1	6.7	6.5	4.4	2.3	1.9
200- 225	25	3.8	3.8	4.3	4.1	3.7	3.7	3.9	4.4	4.7	4.9	5.1	4.6	4.0	2.9	1.7	1.4

Table 1, (continuation)

Equivalent dose rate resulted from JD for T= 100d, t=5d

R/Z, cm	dR\dz	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						757.2	571.0	330.0	151.2	69.5	41.7	23.3	12.8	8.1	5.6	4.1
5- 15	10						765.4	537.3	299.8	138.6	63.8	37.2	20.9	11.5	7.4	5.1	3.7
15- 30	15						412.3	285.0	192.1	108.5	57.1	33.5	19.0	10.8	6.9	4.8	3.6
30- 43	13						94.5	98.9	98.4	75.2	47.5	31.1	17.8	10.5	7.1	5.0	3.7
43- 53	10						64.3	54.7	54.2	52.4	39.4	28.0	17.1	9.8	6.9	5.1	3.8
53	0	78.1	75.7	75.0	73.5	56.6	31.9	37.7	41.6	43.7	35.0	26.2	16.9	9.3	6.7	5.0	3.9
53- 60	7	49.2	50.0	48.9	45.9	32.5	21.7	30.8	35.8	38.8	32.1	24.8	16.8	9.1	6.5	5.0	3.9
60- 75	15	28.4	32.7	35.5	31.7	22.5	18.3	22.9	25.5	28.2	26.3	20.2	15.8	8.9	5.7	4.7	3.8
75- 100	25	22.1	22.1	21.4	18.7	14.6	13.1	15.2	16.3	17.2	17.4	16.0	11.8	9.8	5.3	4.1	3.3
100- 125	25	11.6	12.2	12.7	11.6	9.9	9.5	10.2	11.5	10.7	11.6	10.9	9.1	7.0	5.3	3.6	2.6
125- 150	25	8.1	8.2	8.6	7.9	6.9	6.8	7.2	7.5	7.4	7.3	7.2	5.8	4.4	5.1	3.9	2.8
150- 175	25	6.2	6.1	6.2	5.6	5.2	5.4	5.5	5.7	5.5	6.0	6.5	6.0	5.5	4.8	4.1	3.0
175- 200	25	4.4	4.5	4.8	4.3	3.8	3.9	4.2	4.6	4.6	5.2	5.8	5.6	5.3	3.6	1.9	1.5
200- 225	25	3.3	3.2	3.6	3.4	3.1	3.1	3.2	3.6	3.9	4.0	4.1	3.8	3.3	2.3	1.3	1.1

Table 1, (continuation)

Equivalent dose rate resulted from JD for T= 100d, t=30d

R/Z, cm	dR/dZ	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						262.0	200.4	115.7	55.5	25.9	15.9	8.9	5.0	3.2	2.2	1.7
5- 15	10						263.4	187.2	105.4	50.9	23.9	14.3	8.1	4.5	3.0	2.1	1.6
15- 30	15						147.9	104.6	70.6	40.5	21.6	12.8	7.5	4.2	2.7	1.9	1.4
30- 43	13						45.0	41.9	38.8	28.9	18.2	11.9	6.9	4.1	2.7	2.0	1.5
43- 53	10						32.0	24.7	22.6	20.6	15.3	10.8	6.6	3.8	2.6	1.9	1.5
53	0	39.5	37.7	37.2	36.0	30.0	17.7	17.3	17.7	17.3	13.7	10.2	6.5	3.7	2.6	1.9	1.5
53- 60	7	26.5	25.9	24.9	23.1	17.6	11.8	14.5	15.3	15.6	12.6	9.7	6.5	3.7	2.5	1.9	1.5
60- 75	15	15.5	17.1	18.2	16.2	11.7	9.6	11.0	11.3	11.7	10.5	8.2	6.2	3.5	2.3	1.8	1.5
75- 100	25	12.2	11.9	11.2	9.7	7.6	6.8	7.5	7.5	7.5	7.2	6.5	4.8	3.9	2.2	1.7	1.3
100- 125	25	6.1	6.5	6.7	6.1	5.2	4.9	5.2	5.4	5.0	5.1	4.6	3.8	2.8	2.2	1.5	1.0
125- 150	25	4.2	4.3	4.5	4.2	3.6	3.6	3.7	4.1	3.5	3.4	3.3	2.6	2.0	2.1	1.6	1.2
150- 175	25	3.2	3.2	3.2	3.0	2.7	2.8	2.8	3.1	2.7	2.8	2.8	2.5	2.3	2.0	1.7	1.3
175- 200	25	2.3	2.3	2.5	2.2	2.0	2.0	2.2	2.4	2.2	2.3	2.5	2.3	2.1	1.5	0.8	0.7
200- 225	25	1.7	1.7	1.9	1.8	1.6	1.6	1.6	1.8	1.8	1.8	1.9	1.8	1.4	1.1	0.7	0.5

Table 1, (continuation)

Equivalent dose rate resulted from JD for T= 100d, t=100d

R/Z, cm	dR\dz	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						76.5	58.9	36.3	18.5	9.1	5.8	3.2	1.9	1.2	0.9	0.7
5- 15	10						77.0	56.4	33.5	17.1	8.6	5.2	3.0	1.7	1.1	0.9	0.7
15- 30	15						49.3	34.9	24.3	14.3	7.8	4.7	2.8	1.6	1.0	0.7	0.5
30- 43	13						23.5	19.0	15.2	10.7	6.7	4.4	2.6	1.5	1.0	0.8	0.6
43- 53	10						18.1	12.4	9.8	8.0	5.7	4.0	2.5	1.5	1.0	0.8	0.6
53	0	23.2	22.0	21.4	20.8	17.4	10.2	8.8	7.8	6.9	5.2	3.9	2.5	1.5	1.0	0.8	0.6
53- 60	7	16.0	15.3	14.4	13.3	10.1	6.8	7.3	7.0	6.3	4.9	3.7	2.4	1.4	1.0	0.8	0.6
60- 75	15	9.5	10.2	10.5	9.3	6.8	5.5	5.7	5.4	4.9	4.2	3.2	2.4	1.4	0.9	0.6	0.6
75- 100	25	6.3	6.4	6.2	5.5	4.3	3.8	3.9	3.7	3.4	3.1	2.6	1.9	1.4	0.9	0.7	0.5
100- 125	25	3.1	3.4	3.5	3.3	2.9	2.7	2.7	2.7	2.4	2.3	2.0	1.6	1.2	0.9	0.6	0.4
125- 150	25	2.1	2.2	2.4	2.3	1.9	1.9	2.0	2.0	1.8	1.6	1.5	1.3	1.0	0.9	0.7	0.5
150- 175	25	1.7	1.7	1.7	1.6	1.5	1.5	1.5	1.6	1.4	1.4	1.3	1.1	1.0	0.8	0.7	0.5
175- 200	25	1.1	1.2	1.2	1.1	1.0	1.0	1.1	1.2	1.1	1.1	1.1	1.0	0.9	0.7	0.4	0.4
200- 225	25	0.9	0.9	1.0	0.9	0.8	0.8	0.9	1.0	0.9	0.8	0.9	0.8	0.6	0.6	0.4	0.4

Table 1, (continuation)

Equivalent dose rate resulted from JD for T= 10y, t=1d

R/Z, cm	dR\dz	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						1610.0	1230.8	727.5	349.4	164.9	98.7	53.9	30.4	19.7	13.7	9.9
5- 15	10						1616.6	1154.7	666.3	320.4	151.9	88.8	49.2	27.8	17.9	12.5	9.1
15- 30	15						957.4	662.2	449.2	256.0	134.7	79.9	45.4	25.5	16.6	11.7	8.6
30- 43	13						330.6	285.3	249.6	181.7	114.6	74.1	43.0	24.6	16.5	11.8	8.7
43- 53	10						175.8	148.9	142.0	128.9	95.2	67.2	40.8	23.2	15.9	11.8	9.0
53	0	236.6	213.4	202.5	194.5	150.4	86.2	101.3	110.3	108.6	85.4	63.7	40.2	22.4	15.5	11.8	9.0
53- 60	7	180.6	154.2	138.3	123.9	87.1	58.7	83.1	95.0	96.9	78.3	60.6	39.9	22.0	15.1	11.6	9.0
60- 75	15	107.4	104.5	101.1	86.6	60.8	49.4	61.3	67.0	71.3	64.7	50.3	37.8	21.8	13.8	10.9	8.9
75- 100	25	50.1	54.9	57.4	50.4	39.4	35.7	40.5	42.9	44.2	43.9	39.6	29.2	23.3	13.3	9.8	7.8
100- 125	25	25.1	27.8	30.9	29.7	25.4	24.4	26.5	29.0	27.4	29.2	27.1	22.5	17.1	13.0	8.9	6.2
125- 150	25	17.1	18.0	19.7	19.3	17.1	17.0	18.2	21.4	18.4	18.7	18.4	19.7	11.4	12.5	9.7	6.9
150- 175	25	12.8	12.9	13.9	13.3	12.4	12.6	13.2	15.7	13.8	14.8	15.8	14.7	13.5	11.0	10.0	7.7
175- 200	25	9.2	9.2	10.6	9.8	9.0	9.3	9.8	11.8	11.1	12.2	13.9	12.6	12.6	8.5	4.8	4.3
200- 225	25	6.8	6.8	8.1	7.6	6.9	7.1	7.6	9.1	9.1	6.9	10.3	9.1	8.0	6.4	3.6	3.1

Table 1, (continuation)

Equivalent dose rate resulted from JD for T= 10y, t=3d

R/Z, cm	dR\dz	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						1144.5	844.2	494.6	229.1	107.4	65.5	35.7	19.9	12.7	8.9	6.4
5- 15	10						1144.4	802.3	450.1	212.1	99.2	58.3	32.6	18.1	11.6	8.1	6.0
15- 30	15						619.5	428.9	293.2	167.1	88.6	52.3	30.0	16.7	10.9	7.6	5.5
30- 43	13						160.4	162.2	156.4	117.8	74.6	48.5	28.0	16.2	10.9	7.8	5.7
43- 53	10						140.2	102.5	90.9	83.4	61.6	43.6	26.5	15.3	10.6	7.8	5.8
53	0	169.5	166.9	164.0	160.4	128.6	73.1	72.0	70.8	69.8	55.2	41.3	26.2	14.6	10.3	7.8	5.9
53- 60	7	102.0	107.3	106.9	100.4	72.6	48.0	59.1	61.4	62.4	50.9	39.3	26.0	14.2	10.0	7.7	5.9
60- 75	15	57.6	68.5	75.8	68.6	48.7	39.3	44.6	45.4	46.4	42.1	32.5	24.8	14.1	9.0	7.2	5.8
75- 100	25	36.8	41.3	43.5	39.3	30.8	27.7	30.0	30.3	29.7	28.8	25.9	19.0	15.4	8.6	6.5	5.2
100- 125	25	20.9	22.7	24.4	23.1	19.8	19.1	20.0	21.0	19.0	19.6	18.0	14.9	11.1	8.3	5.8	4.1
125- 150	25	14.3	14.7	16.0	15.3	13.3	13.2	13.9	14.1	13.4	12.8	12.2	9.9	7.6	8.1	6.2	4.6
150- 175	25	10.7	10.7	11.3	10.7	9.9	10.0	10.3	10.4	10.0	10.6	11.0	9.8	9.1	7.7	6.5	4.8
175- 200	25	7.7	7.6	8.6	7.9	7.1	7.3	7.7	8.3	8.1	8.9	9.8	8.9	8.2	5.3	3.2	2.4
200- 225	25	5.7	5.7	6.5	6.3	5.6	5.6	6.0	6.7	6.8	6.7	7.1	6.5	5.3	3.9	2.5	2.0



Table 1, (continuation)

Equivalent dose rate resulted from JD for T= 10y, t=5d

R/Z, cm	dR\dZ	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						940.5	703.8	413.9	195.1	89.8	55.3	30.2	16.7	10.8	7.5	5.5
5- 15	10						945.9	667.6	376.7	177.8	83.2	49.2	27.5	15.2	9.9	6.9	5.0
15- 30	15						515.9	359.2	245.6	140.5	74.8	44.1	25.3	14.2	9.2	6.4	4.7
30- 43	13						134.8	136.7	132.2	99.0	62.7	40.9	23.6	13.7	9.1	6.5	4.9
43- 53	10						126.3	89.1	77.4	70.6	52.0	37.0	22.4	12.8	9.0	6.5	4.9
53	0	149.1	147.2	146.5	144.2	118.2	67.8	63.3	60.6	59.3	46.4	34.8	21.9	12.4	8.7	6.5	5.0
53- 60	7	88.5	94.8	95.6	90.4	66.9	44.3	52.0	52.9	53.2	42.9	33.1	21.8	12.1	8.4	6.4	5.0
60- 75	15	50.0	60.4	67.5	61.7	44.1	35.8	39.6	39.5	39.6	35.7	27.6	21.0	11.9	7.7	6.0	4.9
75- 100	25	32.7	36.8	38.8	35.2	27.6	24.8	26.5	26.5	25.6	24.5	22.0	16.0	13.1	7.3	5.5	4.4
100- 125	25	18.8	20.4	21.9	20.6	17.8	17.0	17.8	18.4	16.6	16.9	15.4	12.7	9.4	7.1	4.9	3.5
125- 150	25	12.8	13.2	14.3	13.7	11.9	11.7	12.3	13.7	11.8	11.1	10.6	8.6	6.6	6.9	5.2	3.9
150- 175	25	9.6	9.5	10.0	9.6	8.7	8.9	9.2	10.1	8.8	9.4	9.5	8.3	7.8	6.7	5.5	4.1
175- 200	25	6.8	6.8	7.7	7.1	6.4	6.6	7.0	7.9	7.1	7.7	8.4	7.7	7.0	5.1	2.8	2.1
200- 225	25	5.1	5.1	5.9	5.5	5.0	5.0	5.3	6.1	5.9	5.9	6.2	5.6	4.5	3.3	2.2	1.8

Table 1, (continuation)

Equivalent dose rate resulted from JD for T= 10y, t=30d

R/Z, cm	dR\dz	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						391.8	298.9	178.9	87.7	42.0	26.7	14.4	8.1	5.4	3.8	2.8
5- 15	10						395.8	280.8	163.9	80.8	39.4	23.7	13.2	7.4	5.0	3.5	2.6
15- 30	15						227.2	159.6	112.3	65.6	35.7	21.2	12.4	6.9	4.6	3.3	2.4
30- 43	13						77.9	73.5	66.0	47.9	30.5	19.8	11.5	6.7	4.5	3.2	2.4
43- 53	10						89.0	56.2	42.4	35.2	25.4	17.9	10.9	6.3	4.3	3.1	2.4
53	0	108.4	106.8	107.2	102.4	86.8	51.0	40.5	34.2	30.0	23.0	17.0	10.7	6.2	4.2	3.1	2.4
53- 60	7	62.9	68.2	69.3	65.3	49.5	33.1	33.3	30.2	27.4	21.5	16.3	10.6	6.1	4.2	3.1	2.4
60- 75	15	35.6	43.4	48.6	44.6	32.3	26.0	26.2	23.9	21.5	18.3	14.0	10.4	6.0	3.9	2.9	2.4
75- 100	25	22.1	25.7	27.6	25.2	19.9	17.8	18.1	16.8	15.0	13.3	11.4	8.3	6.4	3.9	2.8	2.1
100- 125	25	12.7	13.8	15.3	14.7	12.5	12.0	12.1	11.8	10.3	9.7	8.5	6.9	4.8	3.6	2.6	1.8
125- 150	25	8.6	9.0	9.9	9.6	8.3	8.2	8.5	8.3	7.5	6.7	6.2	5.0	3.8	3.4	2.7	2.1
150- 175	25	6.5	6.4	6.8	6.6	6.0	6.1	6.4	6.2	5.6	5.7	5.5	4.6	4.2	3.5	2.8	2.1
175- 200	25	4.6	4.5	5.3	4.8	4.4	4.5	4.8	5.0	4.5	4.7	4.9	4.3	3.6	2.9	1.7	1.3
200- 225	25	3.4	3.4	4.0	3.8	3.4	3.4	3.6	4.0	3.7	3.6	3.7	3.4	2.6	1.9	1.4	1.2

Table 1, (continuation)

Equivalent dose rate resulted from JD for T= 10y, t=100d

R/Z, cm	dR/dZ	786- 788	787- 797	797- 822	822- 847	847- 856.5	856.5	856- 866	866- 881	881- 906	906- 931	931- 956	956- 1006	1006- 1056	1056- 1106	1106- 1156	1156- 1206
		0	10	25	25	10	0	10	15	25	25	25	50	50	50	50	50
0- 5	5						145.0	112.9	70.9	38.2	19.4	13.2	6.8	3.9	2.7	2.0	1.4
5- 15	10						146.1	108.2	66.1	36.0	18.7	11.9	6.4	3.7	2.5	1.8	1.3
15- 30	15						92.5	67.6	49.6	30.5	17.3	10.4	6.2	3.4	2.3	1.7	1.3
30- 43	13						48.0	41.9	34.3	23.8	15.0	9.8	5.8	3.3	2.1	1.6	1.2
43- 53	10						69.9	39.2	25.1	18.4	12.6	8.9	5.3	3.2	2.1	1.5	1.1
53	0	85.4	84.3	84.3	82.5	69.6	40.6	28.7	20.7	16.1	11.6	8.6	5.3	3.2	2.0	1.5	1.1
53- 60	7	48.3	53.4	54.7	51.7	39.4	26.3	23.7	18.8	15.0	11.0	8.3	5.3	3.1	2.0	1.5	1.1
60- 75	15	27.1	33.5	38.1	35.1	25.4	20.3	18.9	15.8	12.5	9.8	7.4	5.3	3.1	2.0	1.4	1.1
75- 100	25	14.9	18.8	21.1	19.6	15.5	13.8	13.3	11.6	9.5	7.8	6.3	4.5	3.3	2.1	1.5	1.1
100- 125	25	8.9	10.0	11.3	11.1	9.4	9.1	9.1	8.2	6.8	6.1	5.0	3.9	2.6	2.0	1.5	1.1
125- 150	25	6.1	6.3	7.2	7.1	6.1	6.1	6.2	5.9	5.2	4.4	3.9	3.1	2.3	1.8	1.5	1.2
150- 175	25	4.5	4.5	4.9	4.8	4.4	4.5	4.6	4.4	3.9	3.8	3.4	2.7	2.4	2.0	1.5	1.1
175- 200	25	3.3	3.2	3.7	3.5	3.2	3.3	3.5	3.5	3.0	3.0	3.1	2.5	1.9	1.7	1.2	0.8
200- 225	25	2.4	2.4	2.8	2.7	2.4	2.4	2.6	2.8	2.5	2.3	2.4	2.2	1.5	1.2	1.0	0.9

## **Doses behind the JD for different design options**

Here are given results of induced equivalent dose rate simulations in the area behind Disk Shield.

Tables 1-10 – Dose rate from the “old JD design”

Tables 11-20 – Dose rate from the “new JD design”

Tables 1-2, 11-12 – Dose rate from neutron induced activation (no Sb included) with "iron pipe flux"

Tables 3-4, 13-14 – Dose rate from neutron induced activation (Sb included) with "iron pipe flux"

Tables 5-6, 15-16 – Dose rate from neutron induced activation (Sb included) with "aluminum pipe flux"

Tables 7-8, 17-18 – Dose rate from hadron induced activation with "iron pipe flux"

Tables 9-10, 19-20 - Dose rate from hadron induced activation with "aluminum pipe flux"

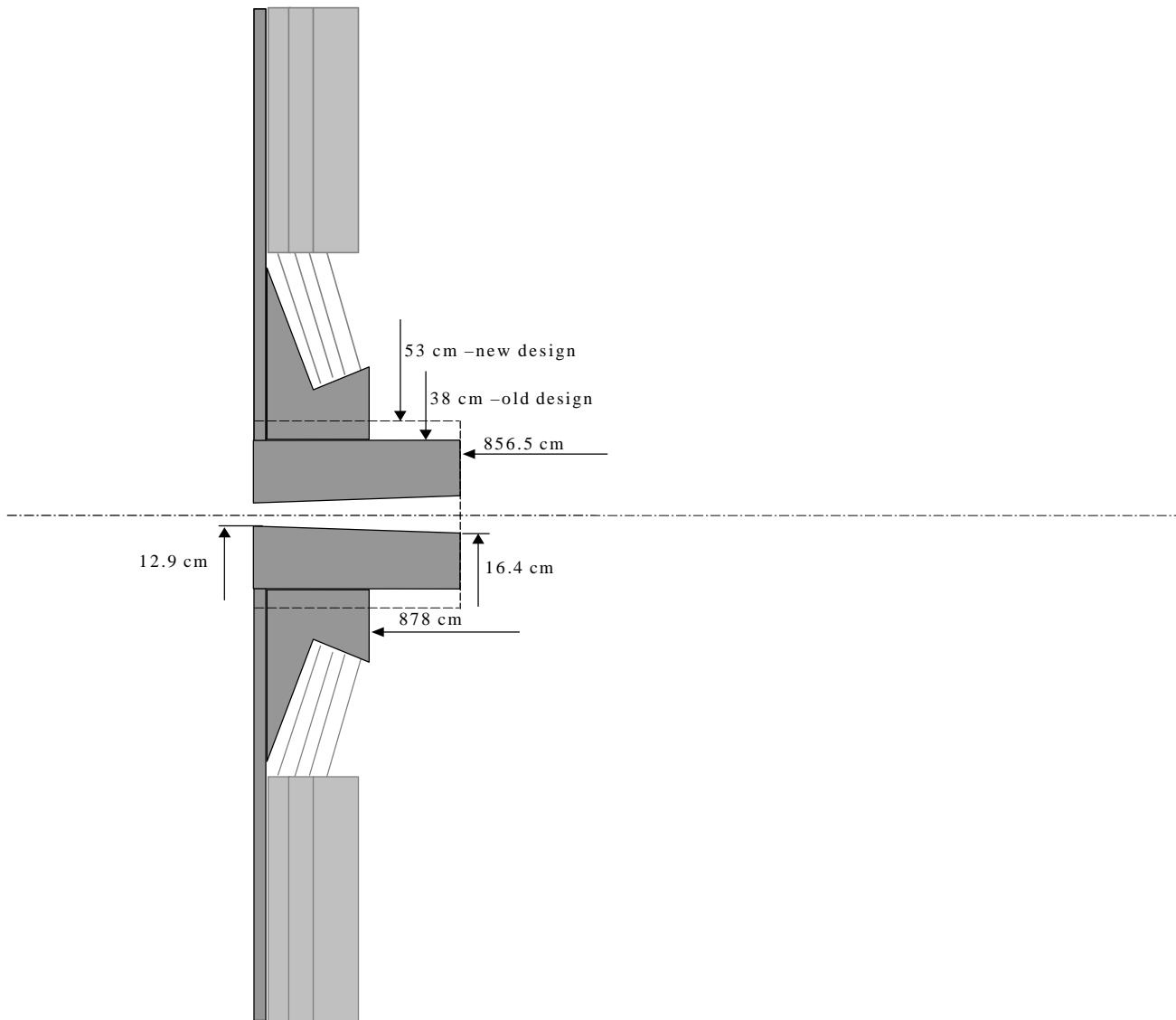


Fig.1. Access scenario to the area between LAr EC and Disk Shield.

Table 1

Dose rate from neutron induced activation in the old design JD (no Sb included) with "iron pipe flux" for T= 100 d, t= 5 d

R/Z, cm	dR\dz	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	44.0	43.6	41.6	33.1	21.0	19.6	15.7	10.1	5.4	2.6	1.4	0.9	0.5	0.3	0.3	0.2	0.2	0.2
10- 20	10	45.3	44.8	43.6	37.2	21.4	18.9	15.9	9.6	5.0	2.5	1.3	0.8	0.4	0.3	0.2	0.2	0.2	0.2
20- 38	18	72.5	71.6	71.1	67.6	35.4	23.7	15.6	8.3	4.6	2.4	1.2	0.7	0.4	0.3	0.2	0.2	0.2	0.2
38	0	74.9	73.3	72.2	69.0	37.7	24.2	14.3	7.6	4.4	2.4	1.2	0.6	0.4	0.3	0.2	0.2	0.2	0.2
38- 60	22	37.8	38.7	38.9	32.7	20.8	17.7	12.9	7.3	4.4	2.5	1.3	0.6	0.4	0.3	0.2	0.2	0.2	0.2
60- 80	20	17.3	18.3	19.4	15.9	12.6	11.8	10.1	6.9	4.4	2.6	1.4	0.8	0.4	0.3	0.2	0.2	0.2	0.2
80- 100	20	8.5	9.5	10.5	9.7	8.3	8.2	7.3	5.6	4.1	2.6	1.4	0.8	0.4	0.3	0.3	0.2	0.2	0.2
100- 125	25	4.7	5.3	6.2	5.9	5.4	5.5	5.1	4.1	3.3	2.3	1.6	0.8	0.4	0.3	0.3	0.2	0.2	0.2
125- 150	25	3.1	3.4	3.9	3.8	3.6	3.7	3.5	3.1	2.7	1.9	1.4	0.8	0.4	0.3	0.2	0.2	0.2	0.2
150- 175	25	2.1	2.2	2.7	2.5	2.5	2.7	2.7	2.2	2.1	1.7	1.1	0.9	0.4	0.3	0.2	0.2	0.2	0.2
175- 200	25	1.5	1.6	2.1	1.7	1.8	1.9	2.0	1.7	1.5	1.5	1.0	0.7	0.5	0.3	0.2	0.2	0.2	0.1
200- 225	25	1.2	1.2	1.6	1.3	1.3	1.4	1.5	1.4	1.2	1.2	1.0	0.5	0.6	0.4	0.2	0.2	0.1	0.1

Table 2

Dose rate from neutron induced activation in the old design JD (no Sb included) with "iron pipe flux" for T= 100 d, t= 100 d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	28.0	27.7	26.4	20.9	13.0	12.3	9.7	6.0	3.2	1.5	0.8	0.5	0.3	0.2	0.2	0.1	0.1	0.1
10- 20	10	28.8	28.5	27.6	23.4	13.5	11.8	9.6	5.7	2.9	1.5	0.8	0.5	0.3	0.2	0.1	0.1	0.1	0.1
20- 38	18	43.2	42.7	42.1	39.5	20.4	13.7	9.1	4.9	2.7	1.4	0.7	0.4	0.2	0.2	0.1	0.1	0.1	0.1
38	0	42.4	41.2	39.8	37.0	20.0	12.9	8.0	4.4	2.6	1.4	0.7	0.4	0.2	0.2	0.1	0.1	0.1	0.1
38- 60	22	21.8	21.9	21.3	17.4	11.1	9.5	7.1	4.2	2.6	1.4	0.8	0.4	0.2	0.2	0.1	0.1	0.1	0.1
60- 80	20	10.0	10.3	10.7	8.6	6.8	6.5	5.5	3.9	2.5	1.5	0.8	0.4	0.2	0.2	0.1	0.1	0.1	0.1
80- 100	20	4.6	5.2	5.8	5.3	4.6	4.5	4.0	3.1	2.3	1.5	0.8	0.5	0.2	0.2	0.1	0.1	0.1	0.1
100- 125	25	2.5	2.9	3.4	3.2	3.0	3.0	2.8	2.3	1.8	1.3	0.9	0.5	0.2	0.2	0.2	0.1	0.1	0.1
125- 150	25	1.6	1.8	2.1	2.1	2.0	2.0	2.0	1.7	1.5	1.1	0.8	0.5	0.2	0.2	0.1	0.1	0.1	0.1
150- 175	25	1.2	1.2	1.5	1.4	1.4	1.4	1.4	1.2	1.2	0.9	0.6	0.5	0.3	0.2	0.1	0.1	0.1	0.1
175- 200	25	0.8	0.8	1.1	0.9	1.0	1.0	1.1	0.9	0.8	0.8	0.6	0.4	0.3	0.2	0.1	0.1	0.1	0.1
200- 225	25	0.6	0.6	0.9	0.7	0.7	0.8	0.8	0.8	0.6	0.6	0.6	0.3	0.3	0.2	0.1	0.1	0.1	0.1

Table 3

Dose rate from neutron induced activation in the old design JD (Sb included) with "iron pipe flux" for T= 100 d, t= 5 d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	44.0	43.5	41.6	33.1	21.0	19.6	15.8	10.1	5.7	3.5	2.0	1.1	0.7	0.6	0.5	0.4	0.4	0.4
10- 20	10	45.3	44.8	43.6	37.2	21.3	19.2	16.0	9.7	5.5	3.4	1.9	1.1	0.7	0.5	0.5	0.4	0.4	0.4
20- 38	18	72.5	71.6	71.1	67.7	35.5	23.7	15.8	8.8	5.3	3.1	1.8	1.0	0.6	0.5	0.4	0.4	0.4	0.4
38	0	74.9	73.7	72.5	69.2	37.7	24.2	14.8	8.2	5.1	3.0	1.8	1.0	0.6	0.5	0.4	0.4	0.4	0.3
38- 60	22	38.5	39.5	39.9	33.7	21.6	18.6	13.8	8.1	5.1	3.1	1.9	1.0	0.6	0.5	0.4	0.4	0.3	0.3
60- 80	20	19.2	20.5	21.3	17.3	13.7	13.1	11.2	7.9	5.1	3.2	1.9	1.1	0.6	0.5	0.4	0.3	0.3	0.3
80- 100	20	16.6	15.3	13.1	11.3	9.6	9.4	8.4	6.5	4.8	3.2	1.9	1.2	0.6	0.4	0.4	0.3	0.3	0.3
100- 125	25	8.7	8.9	8.9	7.8	7.0	7.0	6.6	5.3	4.2	3.0	2.0	1.1	0.7	0.4	0.4	0.3	0.3	0.3
125- 150	25	6.0	6.1	6.1	5.5	5.1	5.1	4.9	4.2	3.6	2.6	1.9	1.2	0.7	0.5	0.4	0.3	0.3	0.3
150- 175	25	4.5	4.4	4.5	4.0	4.0	4.1	4.0	3.2	3.0	2.4	1.6	1.3	0.7	0.5	0.4	0.3	0.3	0.3
175- 200	25	3.2	3.3	3.6	2.9	2.9	2.9	3.1	2.8	2.4	2.1	1.5	1.0	0.8	0.5	0.4	0.3	0.3	0.3
200- 225	25	2.4	2.4	2.8	2.4	2.3	2.3	2.4	2.2	2.0	1.8	1.5	0.9	0.8	0.6	0.4	0.3	0.3	0.3



Table 4

Dose rate from neutron induced activation in the old design JD (Sb included) with "iron pipe flux" for T= 100 d, t= 100 d

R/Z, cm	dR\dz	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	28.0	27.7	26.3	20.9	13.0	12.3	9.7	6.0	3.3	1.8	1.0	0.6	0.4	0.3	0.2	0.2	0.2	0.2
10- 20	10	28.8	28.5	27.6	23.4	13.5	11.8	9.6	5.7	3.1	1.7	0.9	0.5	0.3	0.2	0.2	0.2	0.2	0.2
20- 38	18	43.2	42.8	42.2	39.4	20.3	13.6	9.1	5.0	2.9	1.6	0.9	0.5	0.3	0.2	0.2	0.2	0.2	0.2
38	0	42.4	41.3	40.1	36.8	19.7	12.8	8.2	4.6	2.8	1.6	0.9	0.5	0.3	0.2	0.2	0.2	0.2	0.2
38- 60	22	22.1	22.2	21.6	17.7	11.2	9.7	7.3	4.4	2.8	1.6	0.9	0.5	0.3	0.2	0.2	0.2	0.2	0.2
60- 80	20	10.4	11.0	11.2	9.1	7.2	6.8	5.8	4.1	2.7	1.7	1.0	0.6	0.3	0.2	0.2	0.2	0.2	0.2
80- 100	20	7.0	6.9	6.6	5.8	4.9	4.8	4.3	3.4	2.5	1.7	1.0	0.6	0.3	0.2	0.2	0.2	0.2	0.2
100- 125	25	3.7	4.0	4.2	3.8	3.4	3.5	3.3	2.6	2.1	1.5	1.0	0.6	0.3	0.2	0.2	0.2	0.2	0.2
125- 150	25	2.6	2.7	2.8	2.6	2.4	2.4	2.3	2.0	1.7	1.3	1.0	0.6	0.3	0.2	0.2	0.2	0.2	0.2
150- 175	25	1.9	1.9	2.0	1.8	1.8	1.9	1.8	1.5	1.4	1.1	0.8	0.6	0.3	0.2	0.2	0.2	0.1	0.1
175- 200	25	1.3	1.4	1.6	1.3	1.3	1.3	1.4	1.3	1.1	1.0	0.7	0.5	0.4	0.2	0.2	0.1	0.1	0.1
200- 225	25	1.0	1.0	1.2	1.0	1.0	1.0	1.1	1.0	0.9	0.8	0.7	0.4	0.4	0.3	0.2	0.2	0.1	0.1

Table 5

Dose rate from neutron induced activation in the old design JD (Sb included) with "aluminum pipe flux" for T= 100 d, t= 5d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	24.0	23.3	21.9	17.2	11.0	10.1	8.1	5.1	3.0	2.2	1.3	0.7	0.5	0.4	0.4	0.3	0.3	0.3
10- 20	10	24.3	24.0	22.7	19.3	11.2	9.8	8.1	5.0	3.0	2.1	1.3	0.7	0.5	0.4	0.4	0.3	0.3	0.3
20- 38	18	38.1	37.3	35.6	33.3	17.8	11.8	8.0	4.7	3.0	1.9	1.2	0.7	0.5	0.4	0.3	0.3	0.3	0.3
38	0	41.9	40.9	38.2	34.9	19.0	12.3	7.8	4.6	3.0	1.8	1.2	0.7	0.5	0.4	0.3	0.3	0.3	0.3
38- 60	22	23.9	23.8	22.3	18.0	11.5	9.9	7.6	4.6	3.0	1.9	1.2	0.7	0.4	0.4	0.3	0.3	0.3	0.3
60- 80	20	11.5	12.5	12.4	9.9	7.9	7.6	6.5	4.6	3.1	2.0	1.3	0.8	0.4	0.3	0.3	0.3	0.3	0.3
80- 100	20	11.5	10.2	8.2	6.8	5.8	5.6	5.0	3.9	2.9	2.0	1.2	0.8	0.4	0.3	0.3	0.2	0.2	0.2
100- 125	25	6.5	6.5	6.0	5.1	4.6	4.5	4.2	3.4	2.7	2.0	1.3	0.8	0.5	0.3	0.3	0.2	0.2	0.2
125- 150	25	4.7	4.7	4.4	3.8	3.4	3.4	3.3	2.9	2.4	1.8	1.3	0.8	0.5	0.3	0.3	0.2	0.2	0.2
150- 175	25	3.6	3.5	3.3	2.9	2.9	2.9	2.8	2.3	2.0	1.6	1.1	0.9	0.5	0.4	0.3	0.3	0.2	0.2
175- 200	25	2.6	2.7	2.7	2.2	2.1	2.1	2.2	2.0	1.7	1.5	1.1	0.8	0.5	0.4	0.3	0.3	0.2	0.2
200- 225	25	1.9	2.0	2.1	1.9	1.7	1.7	1.7	1.6	1.4	1.3	1.1	0.6	0.6	0.4	0.3	0.3	0.3	0.3

Table 6

Dose rate from neutron induced activation in the old design JD (Sb included) with "aluminum pipe flux" for T= 100 d, t= 100d

R/Z, cm	dR\dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	15.0	15.0	13.8	10.9	6.8	6.3	5.0	3.1	1.7	1.0	0.6	0.4	0.2	0.2	0.2	0.1	0.1	0.1
10- 20	10	15.4	15.3	14.4	12.1	7.1	6.1	5.0	2.9	1.6	1.0	0.6	0.4	0.2	0.2	0.2	0.1	0.1	0.1
20- 38	18	22.1	21.6	20.9	19.2	10.2	6.9	4.7	2.6	1.6	1.0	0.6	0.3	0.2	0.2	0.1	0.1	0.1	0.1
38	0	23.0	21.9	20.3	18.3	9.9	6.6	4.3	2.5	1.6	0.9	0.6	0.3	0.2	0.2	0.1	0.1	0.1	0.1
38- 60	22	13.6	13.0	11.7	9.2	5.9	5.2	4.0	2.4	1.6	1.0	0.6	0.3	0.2	0.2	0.1	0.1	0.1	0.1
60- 80	20	6.1	6.4	6.4	5.0	4.0	3.8	3.3	2.3	1.6	1.0	0.6	0.4	0.2	0.1	0.1	0.1	0.1	0.1
80- 100	20	4.5	4.3	3.9	3.3	2.8	2.8	2.5	1.9	1.5	1.0	0.6	0.4	0.2	0.1	0.1	0.1	0.1	0.1
100- 125	25	2.5	2.6	2.6	2.3	2.1	2.1	1.9	1.6	1.3	0.9	0.6	0.4	0.2	0.1	0.1	0.1	0.1	0.1
125- 150	25	1.8	1.8	1.8	1.6	1.5	1.5	1.5	1.3	1.1	0.8	0.6	0.4	0.2	0.1	0.1	0.1	0.1	0.1
150- 175	25	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.0	0.9	0.7	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1
175- 200	25	1.0	1.0	1.1	0.9	0.9	0.9	0.9	0.8	0.7	0.7	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1
200- 225	25	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1

Table 7

Dose rate from hadron induced activation in the old design JD with "iron pipe flux" for T= 100 d, t= 5 d

R/Z, cm		787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
	dR\dz	0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	1800.0	1760.4	1589.4	1176.7	746.3	623.3	412.7	174.5	72.1	31.9	15.2	7.2	3.4	2.2	1.7	1.5	1.4	1.4
10- 20	10	1602.3	1601.6	1505.3	1221.5	726.3	531.1	337.5	146.8	63.9	27.7	13.1	6.3	3.4	2.2	1.7	1.5	1.4	1.4
20- 38	18	325.5	325.1	332.0	336.5	185.7	158.2	140.1	93.9	52.8	25.9	12.3	6.4	3.4	2.2	1.7	1.5	1.4	1.4
38	0	144.7	142.4	138.7	135.9	69.6	68.1	74.8	67.9	45.3	24.5	11.9	6.4	3.4	2.2	1.7	1.5	1.4	1.4
38- 60	22	62.6	66.4	69.6	59.3	36.7	40.7	44.0	45.2	35.7	22.0	11.4	6.0	3.4	2.2	1.7	1.5	1.4	1.4
60- 80	20	28.1	30.7	34.4	28.4	22.2	23.5	24.8	24.1	23.7	16.7	11.6	5.1	3.3	2.2	1.7	1.5	1.4	1.4
80- 100	20	16.2	17.6	18.8	17.4	14.9	15.5	16.5	15.8	15.3	13.2	9.4	5.3	2.7	2.2	1.7	1.5	1.4	1.4
100- 125	25	9.6	10.5	11.5	10.8	9.8	10.3	11.4	10.4	10.9	10.0	6.3	5.8	2.6	2.2	1.7	1.5	0.9	0.8
125- 150	25	6.6	7.0	7.6	7.1	6.7	6.9	7.7	7.3	8.0	6.5	6.7	4.3	2.6	2.2	1.2	0.9	0.9	0.8
150- 175	25	4.7	4.7	5.5	4.9	4.9	5.1	5.7	5.4	5.3	5.4	5.2	3.0	2.6	2.2	0.9	0.9	0.8	0.8
175- 200	25	3.3	3.4	4.3	3.5	3.5	3.7	4.3	4.4	3.4	4.8	3.2	2.9	2.6	2.2	0.9	0.8	0.8	0.8
200- 225	25	2.6	2.6	3.3	2.7	2.6	2.8	3.2	3.7	2.7	3.7	2.6	2.8	2.6	2.2	0.9	0.8	0.8	0.8

Table 8

Dose rate from hadron induced activation in the old design JD with "iron pipe flux" for T= 100 d, t= 100 d

R/Z, cm	dR\dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	152.6	150.7	136.9	100.4	64.5	53.7	35.6	15.2	6.2	2.7	1.3	0.6	0.3	0.2	0.1	0.1	0.1	0.1
10- 20	10	138.1	136.4	128.6	106.8	62.2	45.5	29.1	12.7	5.5	2.4	1.1	0.5	0.3	0.2	0.1	0.1	0.1	0.1
20- 38	18	27.9	28.0	28.8	29.1	15.9	13.7	12.2	8.2	4.5	2.2	1.0	0.5	0.3	0.2	0.1	0.1	0.1	0.1
38	0	11.4	11.4	11.3	10.9	5.6	5.7	6.4	5.9	3.9	2.1	1.0	0.5	0.3	0.2	0.1	0.1	0.1	0.1
38- 60	22	5.0	5.3	5.5	4.6	2.9	3.3	3.7	3.9	3.1	1.9	1.0	0.5	0.3	0.2	0.1	0.1	0.1	0.1
60- 80	20	2.2	2.4	2.7	2.2	1.7	1.9	2.0	2.0	2.0	1.4	1.0	0.5	0.3	0.2	0.1	0.1	0.1	0.1
80- 100	20	1.2	1.3	1.5	1.4	1.2	1.2	1.3	1.3	1.3	1.1	0.8	0.5	0.2	0.2	0.1	0.1	0.1	0.1
100- 125	25	0.7	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.9	0.8	0.6	0.5	0.2	0.2	0.1	0.1	0.1	0.1
125- 150	25	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.6	0.4	0.2	0.2	0.1	0.1	0.1	0.1
150- 175	25	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.3	0.2	0.1	0.1	0.1	0.1
175- 200	25	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1
200- 225	25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1

Table 9

Dose rate from hadron induced activation in the old design JD with "aluminum pipe flux" for T= 100 d, t= 5 d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	1100.0	1096.2	959.3	700.0	446.3	373.8	247.4	104.8	43.0	18.9	9.1	4.3	2.0	1.3	1.1	0.9	0.9	0.8
10- 20	10	981.3	974.4	904.3	734.7	433.5	316.8	199.7	86.9	37.9	16.5	7.8	3.8	1.8	1.1	1.1	0.9	0.9	0.8
20- 38	18	184.7	185.1	188.4	187.1	100.8	87.9	80.7	55.0	31.0	15.2	7.3	3.8	1.9	1.2	1.1	0.9	0.8	0.8
38	0	77.4	77.7	76.9	71.8	35.2	36.7	41.9	39.3	26.6	14.4	7.0	3.9	2.0	1.3	1.1	0.9	0.8	0.8
38- 60	22	34.2	36.7	38.3	31.7	19.2	21.9	24.5	25.9	20.6	12.8	6.6	3.6	2.0	1.3	1.1	0.9	0.9	0.9
60- 80	20	15.2	16.8	18.8	15.5	12.0	12.9	13.7	13.6	13.5	9.6	6.8	3.0	2.0	1.4	1.1	0.9	0.9	0.9
80- 100	20	8.9	9.7	10.3	9.5	8.1	8.5	9.2	8.8	8.7	7.5	5.5	3.1	1.6	1.4	1.1	0.9	0.9	0.9
100- 125	25	5.4	5.9	6.4	5.9	5.4	5.7	6.4	5.8	6.2	5.7	3.6	3.4	1.6	1.1	1.1	0.9	0.9	0.9
125- 150	25	3.7	3.9	4.2	3.9	3.7	3.8	4.3	4.1	4.5	3.7	3.9	2.5	1.6	1.1	1.1	0.8	0.8	0.8
150- 175	25	2.7	2.7	3.1	2.7	2.7	2.9	3.2	3.0	3.0	3.0	3.0	1.7	1.6	1.1	1.1	0.8	0.5	0.5
175- 200	25	1.9	1.9	2.4	2.0	2.0	2.1	2.4	2.5	1.9	2.7	1.8	1.7	1.6	0.7	0.7	0.7	0.5	0.5
200- 225	25	1.5	1.5	1.9	1.5	1.5	1.6	1.8	2.1	1.5	2.1	1.5	1.6	0.9	0.7	0.7	0.7	0.5	0.5

Table 10

Dose rate from hadron induced activation in the old design JD with "aluminum pipe flux" for T= 100 d, t= 100 d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350	
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0	
0- 10	10	94.3	92.8	82.3	59.7	38.1	32.1	21.0	9.0	3.7	1.6	0.8	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1
10- 20	10	83.8	83.7	77.5	62.5	37.1	27.1	17.1	7.5	3.2	1.4	0.7	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
20- 38	18	16.2	16.2	16.4	16.1	8.8	7.7	6.9	4.7	2.6	1.3	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
38	0	6.5	6.4	6.3	5.8	2.9	3.1	3.6	3.4	2.3	1.2	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
38- 60	22	2.8	2.9	3.0	2.5	1.5	1.8	2.0	2.2	1.8	1.1	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
60- 80	20	1.2	1.3	1.5	1.2	0.9	1.0	1.1	1.1	1.1	0.8	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
80- 100	20	0.7	0.7	0.8	0.7	0.6	0.7	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1
100- 125	25	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1
125- 150	25	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150- 175	25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
175- 200	25	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
200- 225	25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0

Table 11

Dose rate from neutron induced activation in the new design JD (no Sb included) with "iron pipe flux" for T= 100 d, t= 5 d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	44.0	43.5	41.6	33.0	20.6	19.3	16.2	11.4	6.6	3.5	1.6	1.0	0.5	0.3	0.3	0.2	0.2	0.2
10- 20	10	45.3	45.0	43.5	37.1	21.4	19.2	16.2	11.2	6.4	3.3	1.5	0.9	0.5	0.3	0.2	0.2	0.2	0.2
20- 43	23	57.6	57.8	57.9	53.3	27.2	20.4	15.7	9.6	5.6	3.0	1.5	0.7	0.4	0.3	0.2	0.2	0.2	0.2
43- 53	10	50.6	50.0	50.9	49.0	26.0	17.5	12.1	7.2	4.6	2.7	1.5	0.7	0.4	0.3	0.2	0.2	0.2	0.2
53	0	32.4	31.3	30.7	28.6	15.5	11.8	9.4	6.4	4.3	2.6	1.4	0.7	0.4	0.3	0.2	0.2	0.2	0.2
53- 75	22	16.0	16.2	16.0	13.2	8.3	7.9	7.1	5.3	3.8	2.5	1.4	0.7	0.4	0.3	0.2	0.2	0.2	0.2
75- 100	25	6.2	6.9	7.8	6.5	5.1	5.1	4.7	3.8	3.0	2.1	1.3	0.8	0.4	0.3	0.2	0.2	0.2	0.2
100- 125	25	3.1	3.4	4.0	3.7	3.3	3.3	3.1	2.6	2.3	1.7	1.2	0.7	0.4	0.3	0.2	0.2	0.2	0.2
125- 150	25	1.9	2.1	2.4	2.3	2.2	2.2	2.2	1.9	1.7	1.4	1.1	0.7	0.4	0.2	0.2	0.2	0.2	0.2
150- 175	25	1.3	1.4	1.6	1.5	1.5	1.5	1.6	1.4	1.3	1.1	0.9	0.6	0.4	0.3	0.2	0.2	0.1	0.1
175- 200	25	1.0	1.0	1.2	1.1	1.1	1.1	1.2	1.1	1.0	1.0	0.7	0.6	0.4	0.3	0.2	0.2	0.1	0.1
200- 225	25	0.7	0.7	1.0	0.8	0.8	0.8	0.9	0.9	0.7	0.8	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.2



Table 12

Dose rate from neutron induced activation in the new design JD (no Sb included) with "iron pipe flux" for T= 100 d, t= 100 d

R/Z, cm	dR\dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	28.0	27.5	26.3	20.9	13.0	12.3	10.3	7.0	4.1	2.1	1.0	0.6	0.3	0.2	0.2	0.1	0.1	0.1
10- 20	10	28.9	28.7	27.7	23.4	13.5	12.2	10.3	6.9	4.0	2.0	0.9	0.5	0.3	0.2	0.2	0.1	0.1	0.1
20- 43	23	36.6	36.7	36.6	33.5	17.1	12.9	10.0	5.9	3.5	1.8	0.9	0.4	0.2	0.2	0.1	0.1	0.1	0.1
43- 53	10	29.4	29.1	29.4	28.2	14.8	10.2	7.2	4.4	2.8	1.6	0.9	0.4	0.2	0.2	0.1	0.1	0.1	0.1
53	0	18.5	18.0	17.6	16.2	8.8	6.8	5.6	3.9	2.6	1.6	0.9	0.4	0.2	0.2	0.1	0.1	0.1	0.1
53- 75	22	9.5	9.5	9.2	7.5	4.7	4.6	4.1	3.2	2.3	1.5	0.9	0.4	0.2	0.2	0.1	0.1	0.1	0.1
75- 100	25	3.6	4.0	4.5	3.8	3.0	2.9	2.7	2.2	1.8	1.3	0.8	0.5	0.2	0.2	0.1	0.1	0.1	0.1
100- 125	25	1.7	2.0	2.3	2.1	1.9	1.9	1.8	1.5	1.4	1.0	0.7	0.4	0.2	0.2	0.1	0.1	0.1	0.1
125- 150	25	1.1	1.2	1.4	1.3	1.2	1.3	1.3	1.1	1.0	0.8	0.6	0.4	0.2	0.1	0.1	0.1	0.1	0.1
150- 175	25	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1
175- 200	25	0.5	0.6	0.7	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1
200- 225	25	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1

Table 13

Dose rate from neutron induced activation in the new design JD (Sb included) with "iron pipe flux" for T= 100 d, t= 5 d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	44.0	43.5	41.6	33.0	20.6	19.3	16.2	11.5	6.7	4.0	2.1	1.2	0.8	0.6	0.5	0.4	0.4	0.4
10- 20	10	45.3	45.0	43.5	37.1	21.4	19.2	16.2	11.2	6.6	3.8	2.0	1.1	0.7	0.6	0.5	0.4	0.4	0.4
20- 43	23	57.6	57.8	57.9	53.3	27.2	20.4	15.8	9.7	6.0	3.4	2.0	1.1	0.7	0.5	0.4	0.4	0.4	0.4
43- 53	10	50.6	50.4	51.3	49.1	26.1	17.9	12.4	7.8	5.2	3.2	1.9	1.0	0.6	0.5	0.4	0.4	0.3	0.3
53	0	32.4	31.9	31.8	29.2	16.2	12.9	10.1	7.0	4.9	3.1	1.9	1.1	0.6	0.5	0.4	0.4	0.3	0.3
53- 75	22	17.1	17.6	17.6	14.4	9.4	9.1	8.1	6.1	4.5	3.0	1.8	1.1	0.6	0.4	0.4	0.3	0.3	0.3
75- 100	25	13.5	12.4	10.4	8.1	6.4	6.3	5.8	4.6	3.7	2.7	1.7	1.1	0.6	0.4	0.4	0.3	0.3	0.3
100- 125	25	7.0	7.1	6.7	5.6	4.9	4.8	4.5	3.7	3.2	2.4	1.7	1.0	0.6	0.4	0.3	0.3	0.3	0.3
125- 150	25	4.8	4.8	4.7	4.1	3.6	3.6	3.5	3.1	2.6	2.1	1.6	1.0	0.6	0.4	0.3	0.3	0.3	0.3
150- 175	25	3.7	3.6	3.4	3.0	3.0	3.0	2.9	2.4	2.2	1.8	1.4	1.0	0.6	0.5	0.3	0.3	0.3	0.3
175- 200	25	2.6	2.7	2.7	2.2	2.1	2.2	2.2	2.1	1.8	1.6	1.2	0.9	0.6	0.5	0.4	0.3	0.3	0.3
200- 225	25	1.9	1.9	2.1	1.9	1.7	1.7	1.7	1.6	1.5	1.4	1.1	0.8	0.6	0.5	0.4	0.4	0.3	0.3

Table 14

Dose rate from neutron induced activation in the new design JD (Sb included) with "iron pipe flux" for T= 100 d, t= 100 d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	28.0	27.5	26.3	20.9	13.0	12.3	10.3	7.0	4.1	2.3	1.1	0.7	0.4	0.3	0.2	0.2	0.2	0.2
10- 20	10	28.9	28.7	27.7	23.4	13.5	12.2	10.3	6.9	4.0	2.1	1.1	0.6	0.4	0.3	0.2	0.2	0.2	0.2
20- 43	23	36.6	36.7	36.6	33.5	17.1	12.9	10.0	5.9	3.6	1.9	1.1	0.5	0.3	0.2	0.2	0.2	0.2	0.2
43- 53	10	29.4	29.1	29.4	28.3	14.9	10.2	7.3	4.6	3.0	1.8	1.0	0.5	0.3	0.2	0.2	0.2	0.2	0.2
53	0	18.5	18.1	17.8	16.3	8.9	7.1	5.8	4.1	2.8	1.7	1.0	0.5	0.3	0.2	0.2	0.2	0.2	0.2
53- 75	22	9.9	10.0	9.7	7.8	5.0	4.9	4.4	3.4	2.5	1.7	1.0	0.6	0.3	0.2	0.2	0.2	0.2	0.2
75- 100	25	5.7	5.6	5.3	4.2	3.3	3.3	3.0	2.5	2.0	1.4	0.9	0.6	0.3	0.2	0.2	0.2	0.2	0.2
100- 125	25	2.9	3.1	3.1	2.7	2.3	2.3	2.2	1.9	1.6	1.2	0.9	0.5	0.3	0.2	0.2	0.2	0.2	0.1
125- 150	25	1.9	2.0	2.1	1.9	1.7	1.7	1.7	1.5	1.3	1.0	0.8	0.5	0.3	0.2	0.2	0.1	0.1	0.1
150- 175	25	1.5	1.5	1.5	1.3	1.3	1.3	1.3	1.1	1.0	0.9	0.7	0.5	0.3	0.2	0.2	0.1	0.1	0.1
175- 200	25	1.0	1.1	1.2	1.0	0.9	1.0	1.0	0.9	0.8	0.8	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1
200- 225	25	0.8	0.8	0.9	0.8	0.7	0.8	0.8	0.7	0.6	0.7	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1

Table 15

Dose rate from neutron induced activation in the new design JD (Sb included) with "aluminum pipe flux" for T= 100 d, t= 5d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	24.0	23.3	21.8	17.2	11.0	10.3	8.6	6.2	3.7	2.4	1.4	0.8	0.6	0.4	0.4	0.3	0.3	0.3
10- 20	10	24.4	24.1	22.7	19.2	11.2	10.0	8.6	6.1	3.7	2.3	1.4	0.8	0.5	0.4	0.4	0.3	0.3	0.3
20- 43	23	30.2	29.8	28.8	26.6	14.0	10.8	8.7	5.5	3.5	2.1	1.3	0.7	0.5	0.4	0.3	0.3	0.3	0.3
43- 53	10	36.4	35.6	35.0	32.8	17.4	11.5	7.7	4.7	3.1	2.0	1.3	0.7	0.4	0.4	0.3	0.3	0.3	0.3
53	0	23.9	22.9	21.8	19.7	10.9	8.3	6.5	4.3	3.0	2.0	1.2	0.8	0.4	0.3	0.3	0.3	0.3	0.3
53- 75	22	12.3	12.7	12.4	10.0	6.6	6.2	5.4	4.0	2.9	1.9	1.2	0.8	0.4	0.3	0.3	0.3	0.3	0.3
75- 100	25	10.5	9.4	7.7	5.9	4.7	4.5	4.1	3.2	2.5	1.8	1.2	0.8	0.4	0.3	0.3	0.2	0.2	0.2
100- 125	25	6.1	6.0	5.4	4.4	3.8	3.7	3.4	2.8	2.3	1.7	1.2	0.7	0.4	0.3	0.2	0.2	0.2	0.2
125- 150	25	4.4	4.3	4.0	3.3	2.9	2.9	2.8	2.4	2.0	1.6	1.2	0.7	0.5	0.3	0.2	0.2	0.2	0.2
150- 175	25	3.4	3.3	3.0	2.6	2.5	2.5	2.4	2.0	1.7	1.4	1.0	0.8	0.5	0.4	0.3	0.2	0.2	0.2
175- 200	25	2.5	2.5	2.5	1.9	1.8	1.8	1.9	1.8	1.5	1.3	0.9	0.7	0.5	0.4	0.3	0.2	0.2	0.2
200- 225	25	1.8	1.8	1.9	1.7	1.6	1.5	1.5	1.4	1.2	1.2	0.9	0.6	0.5	0.4	0.3	0.2	0.2	0.2

Table 16

Dose rate from neutron induced activation in the new design JD (Sb included) with "aluminum pipe flux" for T= 100 d, t= 100d

R/Z, cm	dR\dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	15.0	15.0	13.8	10.8	6.8	6.4	5.4	3.9	2.3	1.4	0.7	0.4	0.3	0.2	0.2	0.1	0.1	0.1
10- 20	10	15.4	15.4	14.3	12.1	7.1	6.3	5.5	3.8	2.3	1.3	0.7	0.4	0.2	0.2	0.2	0.1	0.1	0.1
20- 43	23	19.2	18.9	18.3	16.9	8.9	6.9	5.5	3.4	2.1	1.2	0.7	0.4	0.2	0.2	0.1	0.1	0.1	0.1
43- 53	10	22.5	21.9	21.2	20.0	10.5	6.9	4.6	2.8	1.8	1.1	0.6	0.4	0.2	0.2	0.1	0.1	0.1	0.1
53	0	14.5	13.7	13.1	11.7	6.4	4.9	3.8	2.5	1.7	1.1	0.6	0.4	0.2	0.2	0.1	0.1	0.1	0.1
53- 75	22	7.4	7.4	7.1	5.7	3.7	3.5	3.0	2.2	1.6	1.0	0.6	0.4	0.2	0.2	0.1	0.1	0.1	0.1
75- 100	25	4.4	4.3	4.0	3.2	2.5	2.4	2.2	1.7	1.3	0.9	0.6	0.4	0.2	0.2	0.1	0.1	0.1	0.1
100- 125	25	2.5	2.5	2.5	2.1	1.8	1.8	1.7	1.4	1.2	0.8	0.6	0.4	0.2	0.2	0.1	0.1	0.1	0.1
125- 150	25	1.7	1.7	1.7	1.5	1.3	1.3	1.3	1.1	0.9	0.8	0.6	0.3	0.2	0.2	0.1	0.1	0.1	0.1
150- 175	25	1.3	1.3	1.2	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1
175- 200	25	0.9	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1
200- 225	25	0.7	0.7	0.8	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1

Table 17

Dose rate from hadron induced activation in the new design JD with "iron pipe flux" for T= 100 d, t= 5 d

R/Z, cm	dR/dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	1800.0	1760.4	1579.7	1162.3	740.4	620.4	412.1	176.7	73.8	33.1	15.3	7.3	3.4	2.2	1.8	1.5	1.4	1.4
10- 20	10	1549.5	1581.8	1478.5	1210.2	715.5	524.5	336.0	148.9	65.8	28.7	13.5	6.5	3.0	1.9	1.8	1.5	1.4	1.4
20- 43	23	235.6	237.8	244.8	248.2	140.4	127.1	121.6	87.5	51.5	26.2	12.5	6.5	3.2	2.1	1.8	1.5	1.4	1.4
43- 53	10	80.1	80.7	82.3	78.8	38.2	36.7	41.6	46.6	37.7	23.0	11.6	6.3	3.4	2.2	1.8	1.5	1.4	1.4
53	0	43.9	43.5	43.0	38.1	15.7	22.0	30.0	37.0	32.6	21.7	11.4	6.0	3.4	2.3	1.8	1.6	1.5	1.5
53- 75	22	19.6	20.6	21.3	16.9	9.8	13.6	19.3	24.3	24.9	17.9	11.4	5.3	3.4	2.3	1.9	1.6	1.5	1.5
75- 100	25	8.7	9.6	10.5	8.7	6.7	7.9	10.6	12.0	13.7	12.2	9.6	5.2	2.8	2.3	1.9	1.7	1.6	1.6
100- 125	25	5.1	5.4	5.8	5.2	4.6	4.9	6.6	6.8	8.6	8.6	5.5	5.6	1.8	1.8	1.7	1.6	1.6	1.5
125- 150	25	3.4	3.5	3.8	3.4	3.2	3.3	4.5	4.7	5.7	5.4	5.9	3.9	2.6	0.9	1.1	1.2	1.2	1.2
150- 175	25	2.5	2.5	2.7	2.4	2.4	2.4	3.0	3.5	3.5	4.1	4.8	2.4	3.5	1.1	0.6	1.2	1.2	1.2
175- 200	25	1.8	1.8	2.1	1.7	1.8	1.9	2.3	2.9	2.1	3.6	2.5	2.5	2.5	1.1	0.9	1.2	1.2	1.2
200- 225	25	1.4	1.4	1.6	1.3	1.4	1.4	1.7	2.4	1.5	2.9	2.5	2.5	2.5	1.1	0.9	1.2	0.9	0.8

Table 18

Dose rate from hadron induced activation in the new design JD with "iron pipe flux" for T= 100 d, t= 100 d

R/Z, cm	dR\dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	152.6	150.3	135.0	99.3	63.6	53.3	35.5	15.3	6.3	2.8	1.3	0.6	0.3	0.2	0.1	0.1	0.1	0.1
10- 20	10	138.1	136.4	126.7	103.2	61.9	45.4	29.0	12.9	5.7	2.5	1.2	0.6	0.3	0.2	0.1	0.1	0.1	0.1
20- 43	23	20.8	20.9	21.5	21.6	12.3	11.2	10.5	7.6	4.4	2.2	1.1	0.6	0.3	0.2	0.1	0.1	0.1	0.1
43- 53	10	6.6	6.7	6.8	6.5	3.2	3.1	3.6	4.0	3.2	2.0	1.0	0.5	0.3	0.2	0.1	0.1	0.1	0.1
53	0	3.6	3.6	3.5	3.1	1.3	1.9	2.6	3.2	2.8	1.9	1.0	0.5	0.3	0.2	0.1	0.1	0.1	0.1
53- 75	22	1.6	1.7	1.7	1.4	0.8	1.2	1.6	2.1	2.1	1.5	1.0	0.5	0.3	0.2	0.1	0.1	0.1	0.1
75- 100	25	0.7	0.7	0.8	0.7	0.5	0.6	0.9	1.0	1.2	1.0	0.8	0.5	0.2	0.2	0.1	0.1	0.1	0.1
100- 125	25	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.5	0.5	0.2	0.2	0.1	0.1	0.1	0.1
125- 150	25	0.2	0.2	0.3	0.3	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1
150- 175	25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1
175- 200	25	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0
200- 225	25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1

Table 19

Dose rate from hadron induced activation in the new design JD with "aluminum pipe flux" for T= 100 d, t= 5 d

R/Z, cm	dR\dz	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	1100.0	1096.2	955.4	693.1	444.1	368.0	244.1	105.0	43.4	19.7	9.2	4.3	2.0	1.3	1.0	0.9	0.9	0.8
10- 20	10	972.6	965.1	894.1	720.7	427.4	311.3	198.4	87.4	38.8	16.9	8.0	3.8	1.8	1.1	0.9	0.8	0.7	0.7
20- 43	23	137.9	137.2	138.8	137.2	76.8	71.7	69.0	50.5	29.9	15.2	7.4	3.9	1.9	1.2	1.0	0.8	0.8	0.8
43- 53	10	40.5	40.7	40.7	36.8	18.1	18.8	22.6	26.2	21.5	13.3	6.7	3.7	2.0	1.3	1.1	0.9	0.9	0.9
53	0	21.9	21.9	21.2	17.8	7.4	11.2	16.3	20.8	18.5	12.5	6.5	3.6	2.1	1.4	1.1	0.9	0.9	0.9
53- 75	22	9.9	10.4	10.5	8.1	4.6	7.0	10.4	13.6	14.1	10.3	6.6	3.1	2.0	1.4	1.1	0.9	0.9	0.9
75- 100	25	4.5	4.8	5.2	4.3	3.3	4.0	5.6	6.6	7.7	7.0	5.5	3.0	1.6	1.4	1.1	0.9	0.9	0.9
100- 125	25	2.6	2.8	2.9	2.6	2.3	2.5	3.5	3.7	4.8	4.9	3.1	3.3	1.1	1.0	1.0	0.9	0.9	0.9
125- 150	25	1.8	1.9	2.0	1.8	1.6	1.7	2.4	2.5	3.2	3.0	3.3	2.2	1.5	0.5	0.7	0.7	0.7	0.7
150- 175	25	1.3	1.3	1.4	1.3	1.2	1.3	1.6	1.9	1.9	2.3	2.7	2.2	2.1	0.6	0.3	0.4	0.4	0.4
175- 200	25	1.0	1.0	1.1	0.9	0.9	1.0	1.2	1.6	1.2	2.0	1.5	1.4	1.4	0.6	0.5	0.4	0.4	0.4
200- 225	25	0.8	0.8	0.9	0.7	0.7	0.8	0.9	1.3	0.8	1.6	1.5	1.4	1.4	0.6	0.5	0.4	0.4	0.4



Table 20

Dose rate from hadron induced activation in the new design JD with "aluminum pipe flux" for T= 100 d, t= 100 d

R/Z, cm	dR\dZ	787	787- 805	805- 830	830- 856	856.5	856- 860	860- 875	875- 900	900- 925	925- 975	975- 1025	1025- 1125	1125- 1225	1225- 1275	1275- 1325	1325- 1340	1340- 1350	1350
		0	18	25	26	0	4	15	25	25	50	50	100	100	50	50	15	10	0
0- 10	10	94.3	92.5	81.7	59.0	37.6	31.2	20.8	8.9	3.7	1.7	0.8	0.4	0.2	0.1	0.1	0.1	0.1	0.1
10- 20	10	83.1	83.0	76.4	61.5	36.4	26.6	17.0	7.5	3.3	1.4	0.7	0.3	0.2	0.1	0.1	0.1	0.1	0.1
20- 43	23	11.8	11.9	12.0	11.9	6.7	6.1	5.9	4.3	2.6	1.3	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1
43- 53	10	3.4	3.3	3.3	3.0	1.5	1.6	1.9	2.2	1.9	1.1	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1
53	0	1.8	1.8	1.7	1.5	0.6	1.0	1.4	1.8	1.6	1.1	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1
53- 75	22	0.8	0.8	0.9	0.7	0.4	0.6	0.9	1.1	1.2	0.9	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1
75- 100	25	0.3	0.4	0.4	0.3	0.3	0.3	0.5	0.6	0.6	0.6	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1
100- 125	25	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1
125- 150	25	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
150- 175	25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0
175- 200	25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
200- 225	25	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0