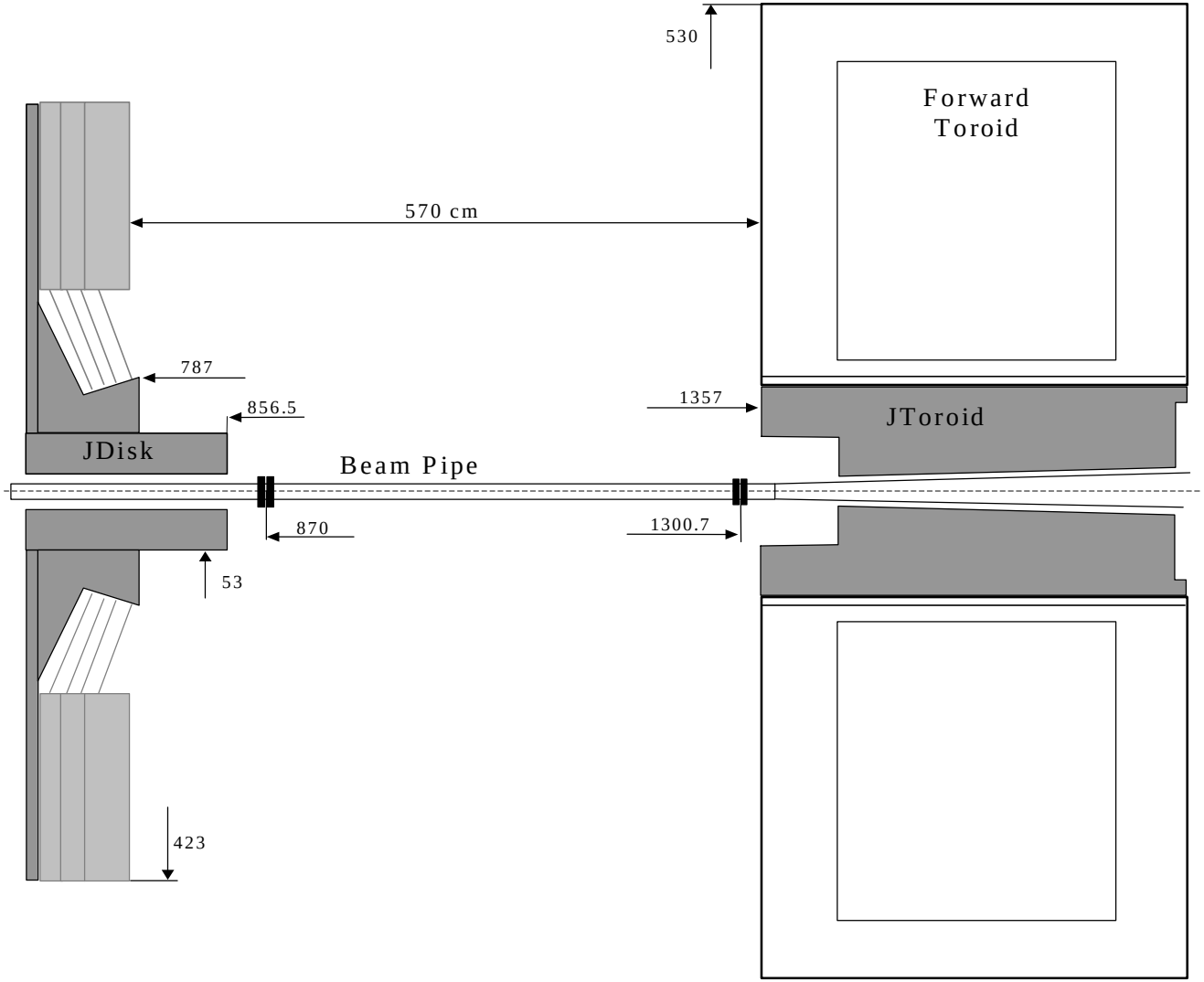

Fig.1. Access scenario to the area between JDisk and Forward Toroid with Beam Pipe in place.

Table 1

Equivalent dose rate from JDisk, Toroid, VA, VT and VJ beam pipe for T= 100d, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																			
5- 15	10						2807.3	2559.9	2329.0	1954.4	1674.9	1483.1	1349.1	764.8	418.0	397.4	917.5	853.6	631.5	606.7
15- 30	15						1220.6	1101.9	1016.9	900.3	783.9	659.0	569.8	343.8	201.8	205.2	343.9	402.3	359.5	379.6
30- 43	13						473.6	466.6	482.8	484.5	462.2	405.6	339.5	221.2	141.4	148.9	213.1	259.8	273.7	302.6
43- 53	10						255.9	265.8	288.1	310.6	317.6	301.2	251.4	172.0	117.9	124.0	164.1	206.8	226.8	254.8
53	0	200.7	180.1	177.5	193.2	200.9	180.5	203.6	233.5	258.9	272.6	263.6	224.2	154.8	109.7	114.4	148.5	188.2	206.3	233.3
53- 60	7	179.6	150.2	141.5	151.2	155.0	155.6	179.4	208.9	233.4	250.5	244.4	213.6	146.8	105.7	109.7	142.5	178.9	193.0	200.9
60- 75	15	120.8	113.4	114.4	118.8	121.7	127.6	137.1	157.6	172.9	189.9	189.6	178.7	122.7	92.5	94.4	124.7	141.7	129.9	113.8
75- 100	25	71.2	73.2	78.9	84.3	90.1	92.2	94.1	107.6	114.4	125.8	132.4	123.7	99.3	73.6	74.8	92.3	79.5	70.3	63.0
100- 125	25	46.0	48.7	54.6	60.6	65.8	65.3	65.5	73.4	79.9	83.4	88.2	87.6	78.7	59.4	57.4	54.8	49.3	44.8	40.0
125- 150	25	36.6	37.8	41.7	46.3	49.5	48.8	49.0	53.6	61.0	62.8	67.0	68.6	58.2	49.3	44.5	41.5	34.4	32.7	29.8
150- 175	25	30.4	30.9	33.2	36.9	38.2	37.7	38.0	40.5	47.1	47.1	50.4	51.7	46.6	41.4	36.6	29.5	25.0	24.2	22.3
175- 200	25	24.4	24.9	27.0	29.3	29.3	29.0	29.4	31.1	36.1	36.5	39.6	40.4	39.4	33.9	29.8	24.2	20.6	19.0	17.3
200- 225	25	19.8	19.9	21.8	23.7	23.4	23.6	23.8	24.8	28.7	29.6	32.7	34.6	32.1	27.6	25.2	20.4	18.1	16.4	14.9

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA, VT and VJ beam pipe for T= 100d, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																			
5- 15	10						1559.6	1429.1	1383.4	1252.6	1128.5	1038.0	959.2	543.4	294.5	274.2	637.6	552.8	371.7	341.9
15- 30	15						659.3	602.7	577.4	542.6	498.2	445.0	397.1	240.8	139.7	137.3	227.9	251.4	206.4	208.2
30- 43	13						219.9	239.7	267.8	285.9	287.6	266.2	232.1	152.2	95.3	97.3	135.3	155.3	154.0	162.1
43- 53	10						160.5	158.5	168.5	186.2	195.7	194.5	169.3	116.9	77.8	79.3	101.6	121.0	125.1	133.4
53	0	104.7	103.7	109.3	123.9	131.9	118.9	126.4	140.2	155.7	167.8	169.3	149.7	104.6	71.9	72.6	90.9	109.4	113.5	121.1
53- 60	7	76.2	78.6	84.7	97.1	102.8	102.5	113.0	127.3	141.5	154.7	157.0	142.0	99.0	69.4	69.4	86.8	103.9	106.2	103.1
60- 75	15	53.6	59.3	67.5	76.0	79.8	83.7	87.7	98.4	107.0	118.2	121.5	117.1	82.0	60.0	58.9	75.5	82.1	71.0	57.9
75- 100	25	44.6	45.5	48.9	53.9	58.5	60.2	61.0	68.0	72.3	79.1	84.5	80.4	64.9	47.0	46.0	55.6	46.2	39.8	35.8
100- 125	25	31.0	32.3	35.5	39.5	42.8	43.0	43.2	47.3	51.1	53.2	56.7	57.4	50.7	37.4	35.1	33.1	29.5	26.7	24.9
125- 150	25	24.9	25.5	27.6	30.6	32.5	32.3	32.4	35.0	39.0	40.6	43.4	44.8	37.8	30.5	27.6	25.3	21.4	20.1	19.0
150- 175	25	20.5	21.0	22.3	24.6	25.5	25.3	25.5	26.9	30.1	30.5	32.8	33.4	30.0	25.5	22.3	18.6	16.2	15.5	14.5
175- 200	25	16.7	16.9	18.3	19.7	19.7	19.6	19.9	20.8	23.5	23.7	25.7	26.3	24.8	21.1	18.2	15.3	13.2	12.3	11.7
200- 225	25	13.6	13.8	14.7	16.0	15.9	15.9	16.1	16.6	18.6	19.2	21.0	22.0	20.3	17.5	15.5	12.7	11.4	10.6	9.9

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA, VT and VJ beam pipe for T= 100d, t=15d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																			
5- 15	10						809.3	743.7	750.5	716.8	665.5	620.6	575.9	326.3	175.8	164.4	383.9	339.4	234.8	219.4
15- 30	15						365.9	332.7	321.0	307.7	289.1	263.1	237.1	144.2	83.6	82.9	138.9	156.2	132.0	135.6
30- 43	13						132.7	140.1	154.5	164.8	166.4	156.5	138.1	90.9	57.4	59.2	83.6	98.0	99.6	106.5
43- 53	10						95.8	92.9	98.3	108.2	114.3	114.3	100.7	69.8	47.0	48.7	63.2	77.2	81.6	88.3
53	0	66.6	65.1	67.9	76.6	80.8	71.3	74.4	82.3	90.9	98.3	99.4	88.8	62.5	43.5	44.8	56.8	70.0	74.3	80.1
53- 60	7	49.8	50.1	53.2	60.4	63.0	61.4	66.6	74.7	83.0	90.7	92.3	84.2	59.2	41.9	42.8	54.6	66.7	69.3	67.7
60- 75	15	34.4	37.4	42.5	47.1	48.7	50.1	52.4	58.2	63.1	69.7	71.8	69.0	49.2	36.3	36.2	47.7	52.6	45.6	37.1
75- 100	25	28.9	29.0	30.7	33.5	35.6	36.3	36.8	40.7	43.0	47.1	50.0	48.1	38.7	28.5	28.2	35.0	28.8	24.8	22.1
100- 125	25	19.6	20.4	22.3	24.4	26.1	26.2	26.4	28.8	30.6	31.9	33.8	33.9	30.2	22.8	21.5	20.3	18.1	16.4	15.0
125- 150	25	15.6	16.0	17.3	19.0	20.0	19.9	20.1	21.3	23.3	24.2	25.7	26.4	22.7	18.5	16.7	15.3	13.0	12.2	11.3
150- 175	25	12.9	13.1	14.0	15.1	15.6	15.7	15.8	16.5	18.1	18.5	19.8	20.0	18.1	15.4	13.6	11.3	9.9	9.3	8.6
175- 200	25	10.5	10.6	11.4	12.0	12.0	12.2	12.3	12.8	14.2	14.4	15.5	15.9	14.9	12.7	10.9	9.3	8.1	7.5	7.0
200- 225	25	8.5	8.5	9.2	9.8	9.8	9.8	9.9	10.2	11.2	11.5	12.7	13.5	12.2	10.4	9.2	7.8	6.9	6.4	6.1

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA, VT and VJ beam pipe for T= 100d, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																			
5- 15	10						160.0	152.7	177.5	192.8	190.1	182.6	170.9	96.6	51.8	49.2	117.5	110.8	82.2	79.2
15- 30	15						84.2	77.4	78.4	80.5	79.8	76.0	69.9	42.6	25.0	25.5	43.7	51.9	46.3	49.0
30- 43	13						44.2	42.3	43.4	45.0	45.9	44.5	40.6	26.7	17.2	18.5	26.9	33.2	35.4	38.9
43- 53	10						34.2	30.2	29.6	30.9	32.2	32.5	29.5	20.5	14.2	15.2	20.6	26.4	29.1	32.5
53	0	28.2	26.9	27.5	29.6	30.2	24.4	23.7	24.8	26.4	27.8	28.2	25.9	18.5	13.2	14.1	18.6	24.0	26.2	29.7
53- 60	7	21.1	20.4	21.0	22.6	22.3	20.5	21.3	22.7	24.2	25.8	26.4	24.4	17.5	12.7	13.5	17.8	22.9	24.6	25.2
60- 75	15	14.1	14.9	16.3	17.4	16.8	16.5	16.9	17.9	18.9	20.3	20.8	19.9	14.7	11.0	11.5	15.7	18.0	16.2	13.6
75- 100	25	10.5	10.6	11.2	11.9	12.0	12.0	12.0	12.8	13.3	14.1	14.7	14.0	11.5	8.7	8.8	11.4	9.7	8.4	7.6
100- 125	25	6.6	7.2	7.7	8.5	8.6	8.6	8.8	9.3	9.6	9.9	10.2	10.2	8.9	6.9	6.7	6.6	5.9	5.4	4.8
125- 150	25	5.2	5.4	5.9	6.5	6.5	6.6	6.7	6.9	7.4	7.5	7.7	7.8	6.9	5.7	5.3	4.9	4.1	4.0	3.3
150- 175	25	4.2	4.5	4.7	5.0	5.2	5.2	5.3	5.4	5.6	5.7	6.1	6.1	5.6	4.8	4.1	3.7	3.2	3.1	2.8
175- 200	25	3.4	3.4	3.7	3.9	3.9	4.0	4.1	4.2	4.4	4.4	4.9	4.9	4.5	3.8	3.4	2.9	2.6	2.4	2.2
200- 225	25	2.8	2.8	3.0	3.2	3.2	3.2	3.3	3.4	3.6	3.6	3.9	4.3	3.6	3.2	2.9	2.5	2.2	2.2	1.9

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA, VT and VJ beam pipe for T= 10 y, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																			
5- 15	10						3143.8	2867.7	2587.7	2162.7	1848.7	1633.2	1479.6	839.8	460.7	436.9	1014.3	972.6	736.9	712.1
15- 30	15						1361.5	1225.0	1133.2	1004.8	870.7	728.3	627.2	379.4	224.5	226.7	382.2	454.5	410.6	433.9
30- 43	13						537.4	527.4	544.4	544.5	518.4	449.5	374.4	244.5	157.0	165.0	237.4	291.7	309.1	342.4
43- 53	10						330.7	320.9	331.3	351.2	355.4	334.7	277.8	190.0	130.5	137.6	183.1	231.9	254.9	287.2
53	0	277.0	255.1	250.8	270.0	268.8	227.8	243.7	269.5	292.7	306.0	293.4	247.9	171.1	121.3	127.2	166.0	211.1	232.0	260.3
53- 60	7	223.3	200.5	193.2	202.6	198.7	190.1	213.4	241.9	264.8	281.4	272.4	236.3	162.1	117.0	121.8	159.0	200.6	217.2	224.8
60- 75	15	145.6	144.6	150.8	154.6	151.1	154.0	163.4	183.7	197.5	214.5	211.8	198.5	135.8	102.4	105.2	139.5	159.0	146.1	128.4
75- 100	25	85.4	91.4	100.0	105.6	109.1	110.7	112.4	126.3	132.1	143.4	148.7	137.7	110.2	81.5	83.2	103.3	89.4	79.1	71.4
100- 125	25	55.6	59.4	67.0	73.6	78.4	77.5	77.8	86.2	92.5	95.4	99.7	98.1	87.7	66.2	64.2	61.5	55.6	50.7	45.5
125- 150	25	43.8	45.2	50.0	55.3	58.1	57.3	57.7	62.7	70.3	71.8	76.2	77.1	65.0	55.0	49.9	46.5	39.0	37.1	33.9
150- 175	25	35.6	36.3	39.6	43.5	44.6	44.2	44.5	47.2	54.0	54.1	57.6	57.8	52.1	46.2	40.9	33.2	28.4	27.6	25.4
175- 200	25	28.8	29.1	31.7	34.3	34.0	34.1	34.4	36.1	41.7	41.7	45.2	45.6	44.1	38.0	33.4	27.4	23.2	21.8	19.8
200- 225	25	22.9	23.3	25.5	27.8	27.2	27.4	27.7	28.8	33.2	33.9	37.0	39.7	36.0	31.1	28.4	22.9	20.5	18.6	17.1

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA, VT and VJ beam pipe for T= 10 y, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																			
5- 15	10						1874.3	1707.9	1635.3	1454.2	1297.5	1183.0	1088.6	617.2	334.9	313.2	730.8	667.0	474.3	442.5
15- 30	15						795.2	726.0	693.8	643.2	583.0	512.6	453.1	274.7	159.8	158.0	264.4	300.9	255.9	260.2
30- 43	13						274.8	297.8	329.9	344.0	339.6	309.1	266.4	174.5	109.7	112.7	158.7	186.3	188.0	199.8
43- 53	10						234.3	212.4	211.4	225.4	232.7	226.9	195.1	134.4	90.1	92.6	119.9	145.3	152.6	164.0
53	0	179.3	179.6	186.7	200.2	199.9	165.0	166.3	175.7	189.3	200.1	198.0	173.0	120.5	83.4	85.0	107.7	131.3	138.1	149.1
53- 60	7	119.4	127.2	135.9	147.8	145.3	136.1	146.1	159.7	172.1	184.7	184.1	164.2	114.2	80.4	81.4	103.1	124.9	129.3	127.1
60- 75	15	78.0	90.0	103.5	111.3	108.9	109.6	113.5	123.9	131.1	141.8	143.0	136.6	94.9	69.8	69.3	89.8	98.6	86.8	71.8
75- 100	25	58.1	63.2	69.7	75.2	77.6	78.0	79.0	86.2	89.6	96.2	100.3	94.3	75.6	55.0	54.4	66.2	55.8	48.6	43.9
100- 125	25	40.8	43.1	47.8	52.5	55.2	55.2	55.4	59.8	63.2	65.0	67.6	67.0	59.0	44.1	41.8	39.5	35.7	32.6	30.2
125- 150	25	31.9	32.7	35.9	39.5	41.0	40.7	41.0	43.9	48.3	49.4	51.6	52.2	44.1	36.2	32.8	30.1	25.7	24.5	22.9
150- 175	25	26.0	26.4	28.5	31.1	31.9	31.8	32.1	33.6	37.1	37.3	39.4	39.0	35.4	30.3	26.8	22.2	19.0	18.6	17.6
175- 200	25	20.9	21.1	22.9	24.6	24.4	24.5	24.7	25.9	28.9	28.8	31.1	31.2	29.4	25.1	21.5	18.3	15.9	14.8	13.9
200- 225	25	16.7	16.9	18.6	20.0	19.7	19.7	20.0	20.7	23.0	23.4	25.1	26.9	24.0	20.8	18.3	15.1	13.8	12.7	12.0

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA, VT and VJ beam pipe for T= 10 y, t=15d

R/Z, cm		787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
	dR\dZ	0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																			
5- 15	10						1094.1	997.6	979.5	910.2	830.2	764.6	704.7	400.0	216.9	203.9	478.3	454.7	337.0	320.0
15- 30	15						495.2	446.7	426.9	402.2	369.3	329.2	292.8	178.0	104.2	103.9	175.8	205.9	181.0	187.2
30- 43	13						185.6	194.8	212.7	219.8	216.4	198.1	172.0	112.9	71.8	74.8	107.0	128.9	133.5	143.9
43- 53	10						167.7	145.2	139.8	145.9	149.8	145.4	126.0	87.1	59.0	61.8	81.6	101.4	108.4	118.4
53	0	138.3	136.1	140.6	150.7	149.0	117.3	113.3	116.4	122.8	129.2	127.2	111.7	78.3	54.8	56.9	73.4	92.1	98.1	107.3
53- 60	7	91.3	97.4	103.2	110.3	105.4	94.4	98.9	106.2	112.2	119.3	118.5	106.0	74.2	52.7	54.3	70.4	87.4	91.9	91.4
60- 75	15	58.5	67.7	77.7	81.9	77.5	75.8	77.7	83.1	86.4	92.4	92.7	87.8	62.0	45.8	46.5	61.6	68.9	61.2	50.9
75- 100	25	42.4	46.4	51.2	54.1	54.1	53.9	54.4	58.4	59.8	63.6	65.5	61.4	49.3	36.4	36.5	45.4	38.4	33.6	30.1
100- 125	25	29.0	30.8	34.2	37.2	38.4	38.0	38.2	40.9	42.4	43.4	44.7	44.0	38.5	29.4	27.9	26.8	24.1	22.1	20.4
125- 150	25	22.5	23.3	25.5	27.5	28.2	28.1	28.4	30.2	32.4	32.9	34.0	34.2	29.1	24.1	21.9	20.3	17.2	16.4	15.4
150- 175	25	17.8	18.0	20.0	21.6	21.9	21.9	22.1	23.1	24.9	25.0	26.3	25.9	23.6	19.9	17.9	14.9	13.0	12.6	11.7
175- 200	25	14.3	14.5	15.9	16.8	16.7	17.0	17.1	18.0	19.5	19.4	20.8	20.7	19.4	16.7	14.5	12.2	10.7	10.1	9.5
200- 225	25	11.4	11.4	12.5	13.5	13.4	13.5	13.6	14.2	15.6	15.6	16.8	18.0	15.8	13.9	12.2	10.2	9.4	9.0	8.3

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA, VT and VJ beam pipe for T= 10 y, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																			
5- 15	10						295.4	279.9	303.6	311.0	298.7	281.2	259.7	147.5	80.7	77.5	185.2	201.0	166.2	161.9
15- 30	15						149.3	137.8	137.7	136.7	131.0	120.0	107.9	65.7	39.1	40.8	70.8	90.3	85.1	90.1
30- 43	13						80.2	78.6	80.7	79.5	77.8	72.0	63.4	41.6	27.3	29.8	44.4	56.7	61.4	68.2
43- 53	10						94.4	71.0	59.2	55.8	55.2	52.9	46.4	32.2	22.6	24.6	34.1	44.7	49.7	55.7
53	0	91.5	90.7	92.1	94.5	88.4	62.1	54.0	50.0	48.0	48.2	46.5	41.1	29.0	21.0	22.7	31.0	40.6	44.9	50.5
53- 60	7	55.8	61.3	64.3	65.5	58.2	47.4	46.2	45.7	44.3	44.9	43.6	39.0	27.6	20.3	21.8	29.7	38.5	42.0	43.0
60- 75	15	33.8	40.6	46.5	46.7	40.6	37.5	36.9	36.6	35.4	35.8	34.8	32.4	23.3	17.7	18.8	25.6	30.4	28.0	24.4
75- 100	25	20.9	25.1	28.6	29.1	27.2	26.3	26.1	26.4	25.7	25.7	25.2	23.3	18.7	14.2	14.8	19.4	16.7	15.0	13.7
100- 125	25	14.2	15.6	17.8	18.7	18.4	18.3	18.4	18.6	18.3	18.3	18.1	17.1	14.6	11.6	11.4	11.2	10.4	9.7	8.8
125- 150	25	10.6	11.1	12.5	13.5	13.2	13.3	13.4	13.8	14.2	14.0	13.8	13.5	11.6	9.6	8.9	8.4	7.4	7.1	6.6
150- 175	25	8.4	8.5	9.5	10.0	10.0	10.0	10.1	10.4	10.7	10.7	10.9	10.3	9.6	8.1	7.2	6.2	5.5	5.4	5.0
175- 200	25	6.4	6.6	7.4	7.8	7.5	7.7	7.8	8.1	8.4	8.1	8.7	8.4	7.7	6.6	5.9	5.1	4.7	4.4	4.1
200- 225	25	5.2	5.2	5.9	6.2	6.0	6.1	6.2	6.6	6.8	6.6	6.9	7.1	6.2	5.6	5.0	4.5	4.0	3.9	3.4

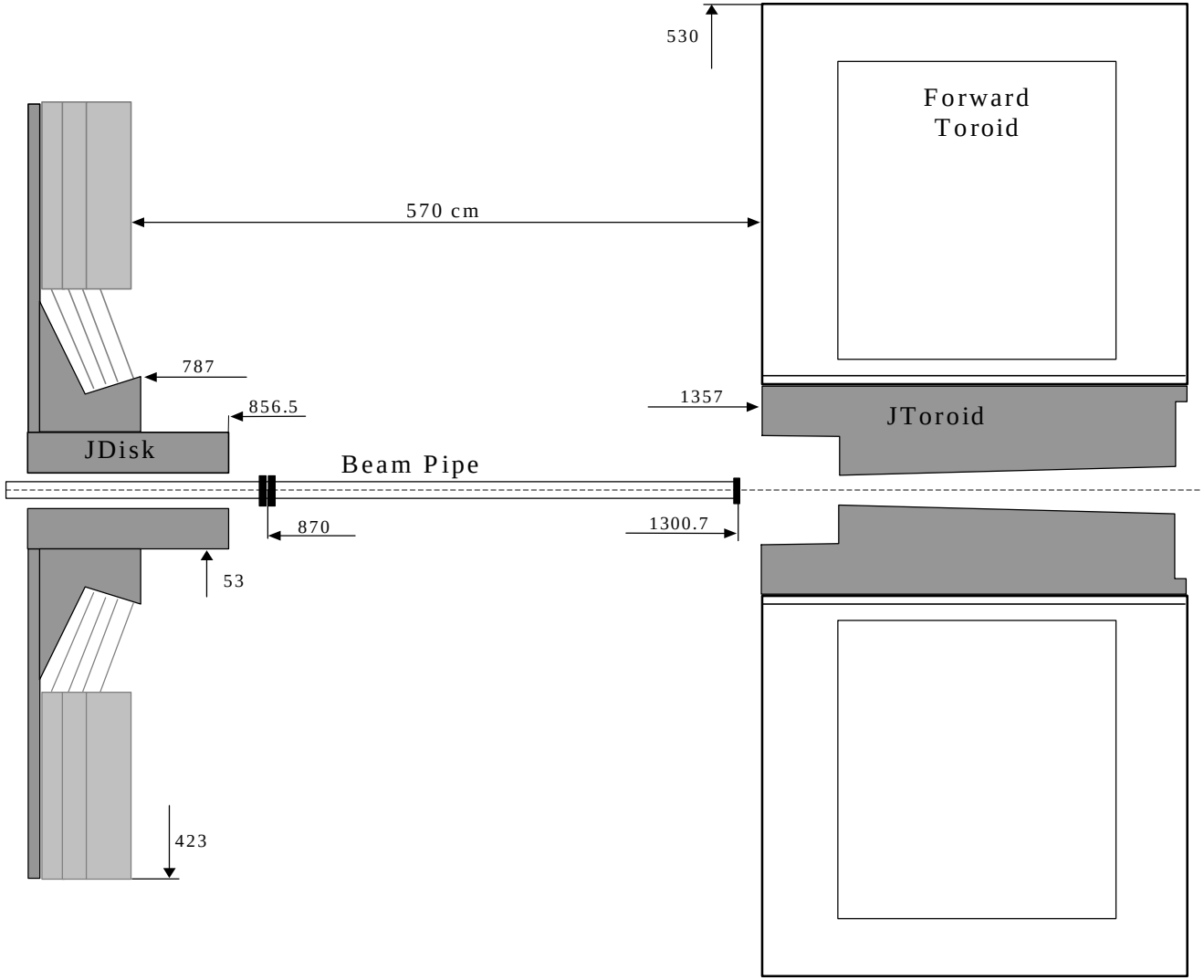

Fig.2. Access scenario to the area between JDisk and Forward Toroid with Beam Pipe in place.

Table 2

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 100d, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	337.3	224.4	257.4
5- 15	10						2806.3	2558.9	2328.2	1952.8	1672.4	1482.2	1347.4	761.6	410.3	370.9	553.0	275.6	207.1	237.2
15- 30	15						1219.5	1100.9	1015.9	899.3	782.7	657.7	568.0	340.8	194.3	181.0	221.9	199.2	191.6	228.6
30- 43	13						472.6	465.6	481.8	483.5	461.2	404.4	337.6	218.4	134.1	127.5	146.8	161.2	182.8	217.9
43- 53	10						254.9	264.7	287.0	309.6	316.5	299.8	249.7	169.2	111.0	105.1	118.1	142.9	164.9	195.9
53	0	200.0	179.3	176.8	192.3	200.0	179.5	202.5	232.6	257.9	271.6	262.2	222.5	152.1	102.9	96.7	109.0	134.9	153.8	182.9
53- 60	7	178.9	149.5	140.8	150.3	154.0	154.5	178.4	208.0	232.3	249.5	243.1	211.6	144.1	99.0	92.5	105.7	130.0	144.5	154.1
60- 75	15	120.0	112.7	113.7	117.9	120.8	126.7	136.1	156.6	171.9	188.7	188.3	177.0	120.1	86.1	79.4	96.4	105.4	93.4	78.3
75- 100	25	70.5	72.4	78.2	83.3	89.2	91.3	93.2	106.7	113.4	124.8	131.2	122.2	96.6	67.8	62.9	73.1	56.2	46.6	39.8
100- 125	25	45.2	47.9	53.8	59.7	64.9	64.4	64.6	72.5	78.9	82.3	87.0	86.0	76.3	54.5	48.4	41.9	34.4	29.6	25.0
125- 150	25	35.9	37.1	40.9	45.5	48.6	47.9	48.0	52.7	60.0	61.7	65.8	67.1	55.9	45.0	37.4	32.3	24.1	22.3	19.4
150- 175	25	29.6	30.2	32.5	36.1	37.3	36.9	37.2	39.6	46.1	46.2	49.2	50.4	44.4	37.7	31.0	22.6	17.5	16.6	14.7
175- 200	25	23.8	24.2	26.3	28.6	28.5	28.2	28.5	30.2	35.2	35.6	38.4	39.1	37.4	30.8	25.3	18.9	14.9	13.3	11.5
200- 225	25	19.1	19.3	21.1	23.0	22.6	22.7	22.8	23.9	27.8	28.7	31.6	33.4	30.4	24.8	21.5	16.1	13.6	11.8	10.3

Table 2, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 100d, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	212.6	119.8	129.7
5- 15	10						1559.2	1428.6	1382.8	1251.9	1127.6	1037.1	958.4	541.5	289.4	256.2	379.3	169.2	109.0	118.7
15- 30	15						658.4	602.0	576.7	541.9	497.4	444.0	396.0	238.9	134.7	120.7	143.1	115.8	99.3	114.1
30- 43	13						219.5	239.1	267.1	285.3	286.8	265.3	230.9	150.3	90.4	82.7	90.1	89.6	95.2	108.1
43- 53	10						159.8	157.8	167.8	185.5	195.2	193.6	168.2	115.1	73.1	66.5	70.4	78.6	84.9	95.6
53	0	104.2	103.2	108.8	123.4	131.2	118.3	125.8	139.5	155.0	167.1	168.5	148.7	102.8	67.4	60.6	64.2	74.1	79.3	88.7
53- 60	7	75.8	78.1	84.2	96.5	102.2	101.9	112.4	126.7	140.8	154.0	156.3	140.9	97.1	64.9	57.7	62.1	71.4	74.6	72.9
60- 75	15	53.0	58.8	67.0	75.5	79.3	83.0	87.1	97.7	106.3	117.5	120.6	116.0	80.2	55.7	48.8	56.4	58.1	47.2	35.0
75- 100	25	44.1	45.0	48.4	53.4	57.9	59.6	60.4	67.4	71.7	78.3	83.7	79.3	63.2	43.2	38.0	42.7	30.9	24.4	20.7
100- 125	25	30.5	31.8	35.0	38.9	42.2	42.5	42.6	46.7	50.4	52.5	55.9	56.4	49.2	34.2	29.1	24.5	19.7	16.8	15.1
125- 150	25	24.4	25.1	27.2	30.1	31.9	31.7	31.8	34.3	38.4	39.9	42.6	43.8	36.3	27.7	23.0	19.2	14.6	13.3	12.2
150- 175	25	20.1	20.4	21.9	24.0	25.0	24.7	24.9	26.2	29.5	29.9	32.1	32.5	28.7	23.0	18.7	14.1	11.2	10.5	9.6
175- 200	25	16.3	16.5	17.8	19.1	19.2	19.1	19.4	20.3	22.9	23.0	25.0	25.4	23.5	19.1	15.2	11.7	9.5	8.5	7.8
200- 225	25	13.2	13.3	14.3	15.6	15.4	15.4	15.6	16.0	18.0	18.6	20.3	21.2	19.1	15.7	13.1	10.0	8.4	7.6	6.9

Table 2, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 100d, t=15d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	132.6	79.6	88.6
5- 15	10						809.0	743.4	750.1	716.3	665.2	620.1	575.3	325.2	172.7	153.5	229.3	106.1	72.7	81.1
15- 30	15						365.6	332.5	320.6	307.1	288.6	262.6	236.4	143.1	80.6	72.9	88.0	74.0	66.5	77.7
30- 43	13						132.3	139.7	154.1	164.4	166.0	155.8	137.4	89.7	54.4	50.4	56.2	58.1	63.7	73.6
43- 53	10						95.5	92.5	97.9	107.8	113.9	113.8	100.0	68.7	44.2	41.0	44.4	51.5	57.1	65.3
53	0	66.3	64.8	67.6	76.3	80.5	71.0	74.0	81.9	90.5	97.9	98.9	88.1	61.4	40.7	37.6	40.7	48.5	53.5	60.4
53- 60	7	49.6	49.8	52.9	60.1	62.7	61.0	66.3	74.3	82.6	90.2	91.8	83.4	58.1	39.2	35.7	39.6	47.0	50.0	49.4
60- 75	15	34.2	37.1	42.2	46.7	48.3	49.6	52.0	57.8	62.7	69.2	71.2	68.4	48.1	33.8	30.1	36.2	38.1	31.1	23.2
75- 100	25	28.6	28.7	30.4	33.2	35.3	36.0	36.5	40.4	42.6	46.7	49.5	47.3	37.6	26.3	23.5	27.2	19.4	15.4	12.9
100- 125	25	19.3	20.2	22.0	24.1	25.7	25.9	26.1	28.4	30.2	31.4	33.3	33.3	29.3	20.7	17.8	15.1	12.2	10.3	9.1
125- 150	25	15.3	15.7	17.0	18.6	19.6	19.6	19.7	21.0	22.9	23.8	25.3	25.8	21.8	16.7	13.8	11.6	8.9	8.1	7.2
150- 175	25	12.7	12.9	13.6	14.8	15.3	15.3	15.4	16.2	17.7	18.1	19.3	19.4	17.3	14.0	11.3	8.5	6.8	6.4	5.6
175- 200	25	10.2	10.4	11.1	11.7	11.6	11.8	11.8	12.5	13.8	14.0	15.0	15.4	14.2	11.4	9.1	7.2	5.8	5.2	4.7
200- 225	25	8.2	8.2	8.9	9.5	9.4	9.5	9.6	9.9	10.8	11.1	12.2	12.9	11.4	9.3	7.8	6.0	5.1	4.6	4.2

Table 2, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 100d, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	43.2	28.8	33.1
5- 15	10						159.9	152.5	177.4	192.7	190.1	182.5	170.6	96.2	50.8	45.7	70.2	35.2	26.3	30.5
15- 30	15						84.1	77.3	78.2	80.4	79.6	75.8	69.6	42.2	24.0	22.4	27.9	25.4	24.4	29.2
30- 43	13						44.0	42.1	43.3	44.9	45.7	44.3	40.4	26.4	16.2	15.7	18.3	20.4	23.6	27.7
43- 53	10						34.1	30.1	29.5	30.7	32.1	32.3	29.3	20.2	13.4	12.8	14.6	18.1	20.9	24.8
53	0	28.2	26.8	27.4	29.5	29.9	24.3	23.6	24.7	26.2	27.7	28.0	25.7	18.1	12.2	11.8	13.5	17.1	19.4	23.1
53- 60	7	21.0	20.3	20.9	22.5	22.2	20.3	21.1	22.5	24.1	25.7	26.3	24.2	17.2	11.8	11.3	13.0	16.5	18.2	19.2
60- 75	15	14.0	14.8	16.2	17.2	16.7	16.4	16.8	17.8	18.8	20.0	20.6	19.7	14.3	10.2	9.6	12.0	13.3	11.4	9.0
75- 100	25	10.4	10.6	11.1	11.8	11.9	11.9	11.9	12.7	13.2	13.8	14.6	13.8	11.2	8.0	7.2	9.0	6.7	5.3	4.5
100- 125	25	6.6	7.0	7.6	8.4	8.5	8.5	8.6	9.1	9.5	9.7	10.0	9.9	8.6	6.3	5.6	4.9	3.9	3.4	2.8
125- 150	25	5.1	5.3	5.8	6.4	6.4	6.5	6.6	6.8	7.3	7.4	7.6	7.5	6.7	5.2	4.3	3.7	2.7	2.6	2.0
150- 175	25	4.1	4.4	4.6	4.9	5.1	5.0	5.0	5.3	5.5	5.6	6.0	5.9	5.3	4.3	3.4	2.8	2.2	2.1	1.8
175- 200	25	3.3	3.4	3.6	3.8	3.8	3.9	4.0	4.1	4.2	4.3	4.7	4.7	4.3	3.4	2.8	2.2	1.8	1.6	1.5
200- 225	25	2.7	2.7	2.9	3.1	3.1	3.1	3.2	3.3	3.5	3.5	3.8	4.2	3.4	2.9	2.5	1.9	1.7	1.6	1.3

Table 2, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 10 y, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	372.6	247.8	285.1
5- 15	10						3142.8	2866.7	2586.3	2161.6	1847.7	1631.2	1477.3	836.8	452.0	406.9	609.5	304.9	229.1	264.2
15- 30	15						1359.9	1223.4	1131.9	1003.5	869.4	726.9	625.2	376.1	215.9	199.0	244.8	220.8	212.3	254.1
30- 43	13						535.6	526.0	543.3	543.2	517.1	448.0	372.4	241.2	148.7	140.7	162.1	177.9	202.7	242.2
43- 53	10						328.9	319.5	330.0	350.0	354.2	333.1	275.8	186.7	122.5	116.0	130.5	158.1	182.7	217.9
53	0	276.2	254.3	249.9	269.1	267.8	226.8	242.7	268.3	291.7	304.5	291.7	246.1	168.0	113.5	106.9	120.8	149.4	170.8	201.2
53- 60	7	222.4	199.6	192.3	201.6	197.5	189.0	212.4	240.8	263.5	279.8	270.8	234.3	159.0	109.4	102.2	117.0	143.9	160.6	170.1
60- 75	15	144.8	143.6	149.9	153.6	150.1	152.9	162.3	182.6	196.3	213.0	210.2	196.5	132.6	95.1	88.0	106.9	117.0	103.6	86.8
75- 100	25	84.4	90.5	99.1	104.6	108.1	109.6	111.3	125.2	130.9	142.1	147.3	135.9	107.2	75.0	69.6	81.1	62.4	51.7	44.3
100- 125	25	54.8	58.6	66.0	72.7	77.3	76.4	76.8	85.1	91.4	94.2	98.3	96.3	84.8	60.5	53.7	46.8	38.3	33.0	28.0
125- 150	25	43.0	44.3	49.1	54.4	57.2	56.3	56.6	61.6	69.3	70.7	74.8	75.4	62.4	50.1	41.7	35.9	27.0	24.9	21.8
150- 175	25	34.8	35.4	38.7	42.6	43.7	43.2	43.5	46.2	53.0	52.8	56.3	56.2	49.6	42.0	34.5	25.2	19.7	18.6	16.5
175- 200	25	28.0	28.4	30.9	33.3	33.1	33.1	33.5	35.2	40.7	40.5	44.0	44.1	41.8	34.5	28.2	21.3	16.5	15.0	13.0
200- 225	25	22.1	22.5	24.7	26.9	26.3	26.5	26.8	27.9	32.1	32.7	35.8	38.3	34.0	27.9	24.1	17.9	15.2	13.3	11.8

Table 2, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 10 y, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	246.1	143.1	157.4
5- 15	10						1873.7	1707.2	1634.7	1453.6	1295.8	1181.6	1086.9	614.8	328.6	291.8	433.7	196.6	130.7	143.7
15- 30	15						794.9	725.5	693.0	642.4	581.9	511.5	451.8	272.5	153.7	138.1	164.9	135.8	119.5	138.2
30- 43	13						274.1	297.1	329.2	343.0	338.6	308.0	264.9	172.2	103.9	95.3	104.8	106.1	114.1	131.1
43- 53	10						233.6	211.7	210.6	224.7	231.8	225.9	193.8	132.2	84.4	77.2	82.3	93.5	102.4	116.2
53	0	178.6	179.0	186.1	199.5	199.2	164.2	165.4	174.9	188.6	199.2	197.0	171.6	118.3	77.9	70.5	75.6	88.0	95.6	108.2
53- 60	7	118.8	126.6	135.3	147.2	144.6	135.3	145.2	158.8	171.4	183.8	183.0	162.9	111.9	74.9	67.4	73.2	85.1	90.0	89.3
60- 75	15	77.4	89.4	102.9	110.6	108.2	108.9	112.7	123.0	130.2	140.9	141.9	135.2	92.8	64.7	57.1	66.8	69.2	57.2	43.0
75- 100	25	57.5	62.6	69.0	74.5	76.8	77.3	78.2	85.4	88.8	95.3	99.3	92.9	73.5	50.3	44.6	50.6	36.8	29.4	25.1
100- 125	25	40.2	42.6	47.1	51.7	54.5	54.4	54.7	59.0	62.4	64.1	66.6	65.7	57.1	40.1	34.5	29.1	23.6	20.3	18.0
125- 150	25	31.3	32.1	35.4	38.8	40.3	40.0	40.3	43.1	47.4	48.6	50.5	51.0	42.4	32.7	27.0	22.7	17.3	16.0	14.5
150- 175	25	25.5	25.9	27.9	30.5	31.1	31.1	31.4	32.9	36.4	36.5	38.5	37.9	33.6	27.3	22.1	16.6	13.0	12.4	11.4
175- 200	25	20.4	20.5	22.4	23.9	23.8	23.9	24.1	25.2	28.2	28.0	30.2	30.2	27.8	22.5	17.8	13.9	11.3	10.1	9.2
200- 225	25	16.2	16.3	18.0	19.4	19.0	19.0	19.3	20.0	22.3	22.5	24.3	25.9	22.5	18.7	15.3	11.7	10.1	9.0	8.3

Table 2, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 10 y, t=15d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	166.5	102.7	114.8
5- 15	10						1093.8	997.1	979.1	909.6	829.6	763.9	703.9	398.4	212.7	189.6	284.3	134.0	93.6	105.3
15- 30	15						494.5	446.1	426.3	401.6	368.5	328.5	291.8	176.4	100.0	90.7	109.9	93.8	86.0	101.2
30- 43	13						185.0	194.2	212.2	219.3	215.8	197.4	171.0	111.3	67.8	63.1	71.0	74.4	82.6	96.1
43- 53	10						167.2	144.7	139.3	145.2	149.3	144.7	125.1	85.6	55.3	51.5	56.4	66.1	73.8	85.2
53	0	137.9	135.7	140.2	150.3	148.5	116.7	112.8	115.9	122.3	128.5	126.5	110.7	76.8	51.1	47.2	51.8	62.7	68.8	79.0
53- 60	7	90.9	97.0	102.8	109.8	104.9	93.9	98.4	105.6	111.6	118.7	117.7	105.0	72.8	49.0	44.9	50.2	60.3	64.8	65.2
60- 75	15	58.1	67.3	77.3	81.4	77.0	75.3	77.2	82.5	85.8	91.8	92.0	86.9	60.4	42.4	38.3	46.0	48.8	40.8	31.1
75- 100	25	42.0	46.0	50.8	53.7	53.6	53.3	53.9	57.9	59.3	62.9	64.8	60.5	47.9	33.2	29.8	34.9	25.5	20.4	17.1
100- 125	25	28.6	30.4	33.8	36.7	37.9	37.5	37.7	40.4	41.9	42.8	44.0	43.2	37.1	26.6	22.9	19.6	15.9	13.6	12.0
125- 150	25	22.1	22.9	25.1	27.1	27.7	27.7	28.0	29.7	31.9	32.4	33.4	33.4	27.8	21.7	18.1	15.2	11.5	10.6	9.6
150- 175	25	17.4	17.6	19.7	21.2	21.4	21.5	21.6	22.6	24.4	24.4	25.7	25.1	22.5	17.8	14.8	11.1	8.8	8.2	7.5
175- 200	25	13.9	14.1	15.5	16.4	16.3	16.4	16.5	17.4	19.0	18.9	20.2	20.0	18.3	14.9	12.0	9.3	7.5	6.9	6.2
200- 225	25	11.1	11.1	12.2	13.1	13.0	13.0	13.2	13.8	15.1	15.1	16.2	17.2	14.7	12.4	10.1	7.8	6.8	6.5	5.9

Table 2, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 10 y, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	67.7	45.5	52.1
5- 15	10						295.1	279.7	303.5	310.7	298.3	280.9	259.3	146.9	78.8	71.3	109.1	55.3	42.0	48.3
15- 30	15						149.0	137.6	137.5	136.4	130.7	119.7	107.4	65.0	37.3	35.1	43.7	40.0	38.7	46.6
30- 43	13						79.9	78.4	80.3	79.3	77.5	71.6	63.0	40.9	25.5	24.7	29.0	32.3	37.1	44.9
43- 53	10						94.2	70.7	58.9	55.6	54.9	52.6	46.0	31.6	20.9	20.2	23.2	28.7	33.4	39.7
53	0	91.4	90.5	91.8	94.2	88.1	61.8	53.7	49.6	47.7	47.9	46.2	40.7	28.3	19.3	18.5	21.6	27.2	31.1	37.0
53- 60	7	55.6	61.1	64.1	65.3	57.9	47.1	46.0	45.4	44.0	44.6	43.3	38.6	26.9	18.6	17.7	20.9	26.2	29.3	30.4
60- 75	15	33.6	40.4	46.4	46.5	40.4	37.3	36.7	36.4	35.2	35.5	34.5	31.9	22.7	16.2	15.2	18.7	21.2	18.5	15.0
75- 100	25	20.8	24.9	28.4	28.9	27.0	26.1	25.9	26.2	25.4	25.5	24.9	22.9	18.0	12.8	11.9	14.5	10.9	8.8	7.6
100- 125	25	14.0	15.4	17.6	18.5	18.2	18.1	18.2	18.4	18.1	18.0	17.8	16.8	14.0	10.4	9.2	7.9	6.6	5.8	5.0
125- 150	25	10.5	10.9	12.4	13.3	13.0	13.1	13.2	13.6	13.9	13.7	13.5	13.1	11.0	8.6	7.1	6.1	4.8	4.3	3.8
150- 175	25	8.2	8.3	9.3	9.8	9.8	9.8	9.9	10.2	10.4	10.5	10.6	10.0	9.1	7.1	5.8	4.5	3.6	3.4	3.0
175- 200	25	6.2	6.4	7.2	7.6	7.3	7.5	7.6	7.9	8.2	7.9	8.5	8.1	7.2	5.8	4.7	3.7	3.1	2.9	2.6
200- 225	25	5.1	5.0	5.7	5.9	5.8	5.9	6.0	6.4	6.6	6.4	6.6	6.8	5.8	5.0	4.0	3.3	2.9	2.8	2.3

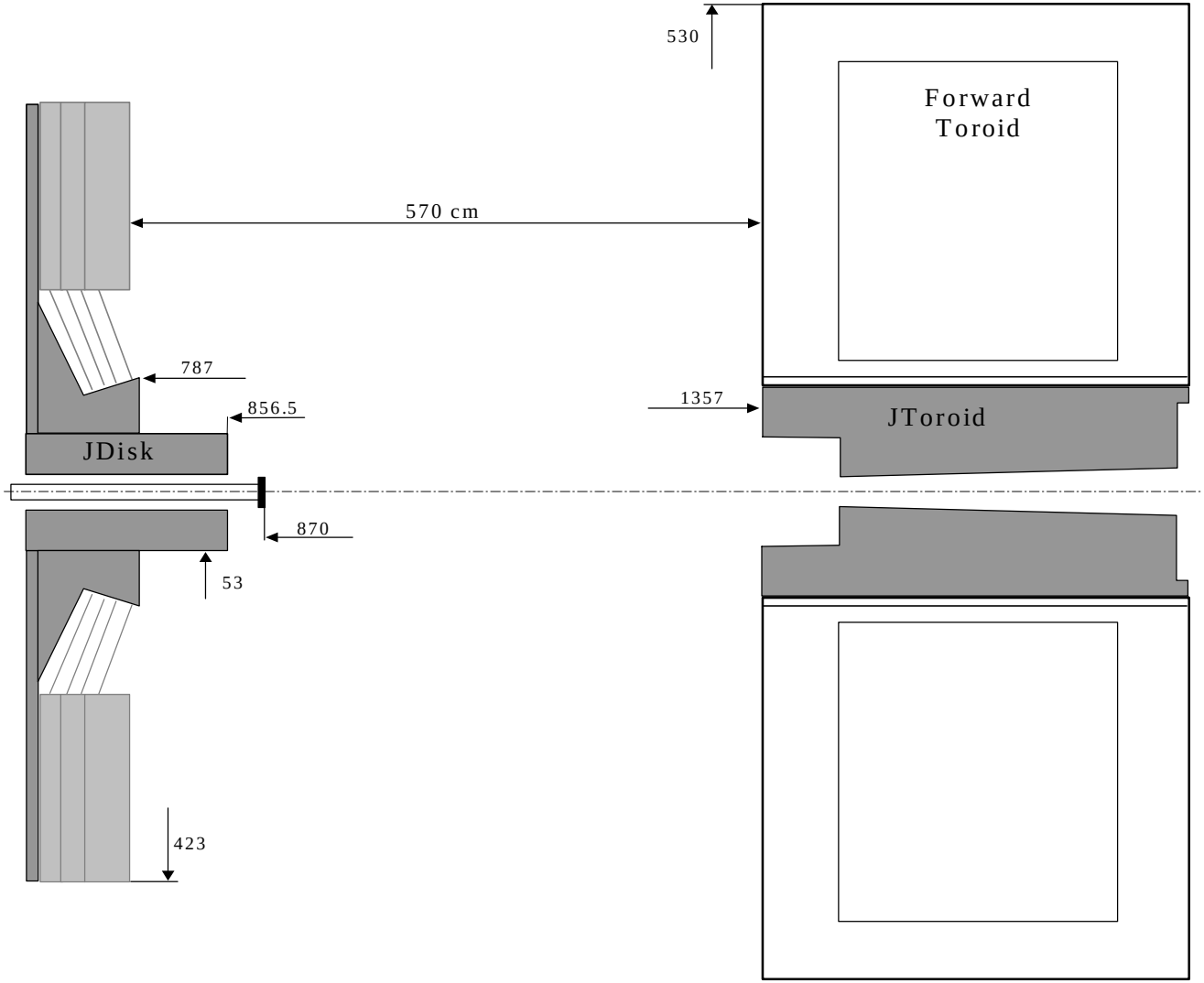

Fig.3. Access scenario to the area between JDisk and Forward Toroid without VT beam pipe.

Table 3

Equivalent dose rate from JDisk, Toroid, and VA beam pipe for T= 100d, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									1065.9	400.9	161.1	67.8	36.5	30.0	43.6	72.9	119.4	166.4	218.9
5- 15	10						2460.0	2157.5	1506.5	769.6	370.4	148.8	64.0	34.3	28.2	40.7	67.7	110.7	151.9	199.6
15- 30	15						999.8	864.8	703.4	487.8	302.9	139.1	64.0	34.4	27.9	39.1	63.7	103.6	143.9	194.1
30- 43	13						327.8	314.4	303.7	266.5	206.8	119.8	57.8	34.9	29.7	40.1	61.6	101.3	143.9	187.6
43- 53	10						144.4	150.7	158.2	158.4	141.5	101.8	53.0	33.1	30.4	38.8	57.5	98.0	132.0	168.9
53	0	164.7	141.9	128.9	122.4	109.1	81.2	101.4	119.9	127.4	121.6	92.1	52.8	31.8	30.4	37.5	56.1	94.9	123.4	157.4
53- 60	7	144.2	112.8	94.1	83.1	67.8	61.6	82.9	102.1	110.5	109.9	84.7	53.5	30.7	30.0	36.4	56.0	92.1	115.2	129.4
60- 75	15	87.7	78.6	71.5	60.1	49.5	50.7	58.5	71.9	76.4	80.8	66.0	53.9	28.2	28.3	32.9	56.3	74.1	68.0	56.2
75- 100	25	42.2	42.9	42.9	38.1	35.9	35.4	36.4	45.9	46.6	50.8	48.2	37.7	29.8	23.3	27.7	43.4	32.3	26.2	21.4
100- 125	25	21.3	23.1	25.3	25.1	25.7	23.7	23.4	29.2	32.3	31.8	31.0	28.6	28.1	20.4	21.6	19.6	15.9	13.2	9.9
125- 150	25	15.7	16.2	17.5	18.2	18.5	16.9	16.7	20.0	25.4	24.7	25.4	25.4	19.4	17.9	16.0	14.3	9.0	8.6	6.6
150- 175	25	12.4	12.5	13.0	14.0	13.4	12.3	12.4	14.0	19.3	17.8	18.6	18.7	15.9	15.6	13.3	7.7	4.7	4.9	3.6
175- 200	25	9.0	9.1	9.9	10.3	9.0	8.3	8.5	9.6	13.8	13.1	14.4	14.2	14.5	12.4	10.4	6.2	3.8	3.0	1.8
200- 225	25	6.3	6.2	7.1	7.7	6.4	6.3	6.3	6.9	10.2	10.3	12.2	13.3	11.5	9.3	8.7	5.1	3.9	2.8	1.7

Table 3, (continuation)

Equivalent dose rate from JDisk, Toroid, and VA beam pipe for T= 100d, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									557.7	202.8	80.5	34.2	18.1	15.7	21.5	35.2	56.6	78.3	102.0
5- 15	10						1308.9	1138.4	788.7	396.4	186.4	74.1	31.9	17.4	15.6	19.9	31.9	51.1	69.4	91.8
15- 30	15						500.1	431.5	351.0	244.6	150.7	69.6	32.2	18.0	15.4	19.2	29.9	47.2	65.2	89.3
30- 43	13						114.7	129.8	138.5	128.5	103.1	59.8	28.9	18.1	15.4	20.1	29.0	46.7	67.3	86.4
43- 53	10						80.1	75.5	74.7	76.3	68.6	50.6	26.3	17.0	15.3	19.1	26.9	46.4	61.4	76.3
53	0	78.7	76.2	74.2	72.8	65.6	47.2	52.7	58.0	60.8	58.8	45.6	26.2	16.1	15.3	18.2	26.3	45.4	57.5	70.4
53- 60	7	50.7	51.6	50.6	48.0	39.9	34.7	43.4	50.1	52.8	53.3	41.8	26.7	15.4	15.3	17.5	26.4	44.3	53.6	55.2
60- 75	15	29.7	34.2	36.5	33.7	27.7	28.2	31.0	36.5	37.4	39.5	32.3	27.1	14.0	14.2	15.5	27.7	35.7	29.0	19.1
75- 100	25	23.7	23.7	22.9	20.7	19.5	19.2	19.4	23.6	23.5	25.0	23.8	18.4	15.0	11.2	12.7	21.5	13.7	9.7	7.5
100- 125	25	13.3	14.0	14.4	13.9	14.0	13.1	12.9	15.4	16.8	16.0	15.5	14.9	14.4	9.7	9.8	8.5	6.4	5.1	4.3
125- 150	25	9.8	10.0	10.3	10.3	10.2	9.3	9.2	10.8	13.4	13.2	13.4	13.7	10.0	8.2	7.6	6.3	3.7	3.5	3.0
150- 175	25	7.7	7.7	7.8	8.1	7.7	7.1	7.1	7.8	10.1	9.4	10.0	9.7	8.1	7.1	6.0	3.4	2.0	2.0	1.6
175- 200	25	5.6	5.6	6.0	6.0	5.1	4.7	4.9	5.4	7.4	6.8	7.7	7.5	7.0	5.8	4.5	2.6	1.5	1.2	0.9
200- 225	25	3.9	3.9	4.2	4.5	3.7	3.5	3.6	3.8	5.3	5.3	6.3	6.7	5.5	4.5	3.9	2.0	1.5	1.1	0.7

Table 3, (continuation)

Equivalent dose rate from JDisk, Toroid, and VA beam pipe for T= 100d, t=15d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									269.5	106.5	43.5	19.0	10.7	9.5	14.0	23.7	39.2	54.8	72.1
5- 15	10						658.2	568.6	392.3	200.7	97.0	39.6	17.7	10.1	9.3	12.8	21.7	35.5	49.0	65.0
15- 30	15						270.0	229.7	184.5	128.0	79.6	37.0	17.4	10.3	9.3	12.4	20.4	33.0	46.0	62.9
30- 43	13						69.2	73.9	76.6	69.9	55.3	32.2	15.8	10.3	9.6	13.1	19.8	32.5	47.0	60.5
43- 53	10						47.4	43.0	41.8	42.0	37.7	27.6	14.6	9.7	9.6	12.6	18.4	32.2	43.0	53.7
53	0	51.0	48.5	46.8	45.8	41.0	28.2	30.0	32.8	33.8	32.6	24.9	14.4	9.3	9.6	12.2	18.0	31.4	40.4	49.4
53- 60	7	34.5	33.8	32.6	30.9	25.1	20.5	24.7	28.2	29.6	29.5	22.9	14.7	9.0	9.5	11.7	18.3	30.7	37.5	38.7
60- 75	15	20.1	22.3	23.9	21.6	17.3	16.6	18.2	20.9	21.2	22.3	18.1	14.9	8.3	8.9	10.2	19.0	24.6	20.2	13.7
75- 100	25	16.3	15.8	15.1	13.5	12.1	11.7	11.8	13.9	13.6	14.6	13.5	10.7	8.7	7.1	8.3	14.5	9.2	6.6	5.0
100- 125	25	8.9	9.4	9.6	9.1	8.7	8.2	8.2	9.6	9.9	9.5	9.0	8.4	8.4	6.1	6.3	5.5	4.2	3.3	2.6
125- 150	25	6.5	6.6	6.8	6.8	6.5	6.1	6.1	6.8	7.9	7.7	7.7	7.7	6.0	5.1	4.6	3.9	2.4	2.2	1.7
150- 175	25	5.2	5.2	5.2	5.2	4.9	4.7	4.7	5.1	6.1	5.7	6.0	5.7	4.9	4.4	3.7	2.1	1.3	1.3	0.9
175- 200	25	3.8	3.8	4.0	3.8	3.2	3.2	3.2	3.5	4.5	4.2	4.6	4.6	4.2	3.5	2.7	1.7	1.1	0.8	0.5
200- 225	25	2.6	2.5	2.8	2.8	2.4	2.3	2.4	2.5	3.2	3.2	3.8	4.3	3.3	2.6	2.2	1.3	0.9	0.7	0.5

Table 3, (continuation)

Equivalent dose rate from JDisk, Toroid, and VA beam pipe for T= 100d, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									49.5	21.7	10.0	4.6	3.1	3.3	5.2	9.3	15.2	21.4	28.2
5- 15	10						114.9	100.4	70.6	38.5	20.2	9.2	4.4	3.0	3.1	4.8	8.5	14.0	19.3	25.7
15- 30	15						55.6	46.6	37.6	26.8	17.2	8.5	4.4	2.9	3.1	4.7	7.8	13.1	18.3	24.8
30- 43	13						25.2	22.5	20.1	16.7	12.7	7.4	4.1	2.8	3.1	4.8	7.5	12.7	18.6	23.9
43- 53	10						19.7	15.3	12.7	11.1	9.3	6.6	3.8	2.7	3.2	4.5	7.0	12.4	16.8	21.4
53	0	23.6	22.0	21.2	20.4	18.2	11.5	10.5	10.0	9.3	8.2	6.0	3.8	2.7	3.1	4.3	6.8	12.0	15.5	19.8
53- 60	7	16.5	15.6	14.8	13.8	11.0	8.2	8.7	8.8	8.3	7.6	5.7	3.8	2.6	3.1	4.2	6.7	11.7	14.5	16.0
60- 75	15	9.8	10.4	10.7	9.7	7.5	6.5	6.7	6.8	6.4	6.1	4.8	3.8	2.5	2.8	3.7	6.9	9.3	8.2	6.1
75- 100	25	6.7	6.7	6.5	5.9	5.0	4.7	4.6	4.8	4.5	4.3	3.8	2.9	2.6	2.3	2.8	5.2	3.6	2.7	2.2
100- 125	25	3.5	3.8	3.9	3.9	3.5	3.3	3.3	3.5	3.4	3.2	2.8	2.5	2.4	2.0	2.2	2.1	1.6	1.3	0.9
125- 150	25	2.5	2.6	2.8	2.8	2.5	2.5	2.5	2.6	2.8	2.6	2.4	2.2	2.0	1.7	1.6	1.4	0.8	0.8	0.4
150- 175	25	1.9	2.1	2.1	2.1	2.0	1.9	1.9	1.9	2.0	1.9	2.0	1.8	1.6	1.5	1.2	0.9	0.6	0.6	0.4
175- 200	25	1.4	1.4	1.5	1.5	1.3	1.3	1.4	1.5	1.5	1.4	1.6	1.5	1.4	1.1	0.9	0.6	0.4	0.3	0.2
200- 225	25	1.0	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.2	1.1	1.3	1.6	1.0	0.9	0.8	0.5	0.4	0.4	0.2

Table 3, (continuation)

Equivalent dose rate from JDisk, Toroid, and VA beam pipe for T= 10 y, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									1197.9	454.3	184.7	77.3	42.4	34.4	48.8	81.2	132.6	184.0	242.7
5- 15	10						2763.8	2427.3	1687.0	865.3	419.4	169.8	72.9	40.4	33.7	45.4	75.6	123.2	168.4	223.0
15- 30	15						1119.7	965.1	790.0	552.9	343.7	158.7	73.3	40.6	33.7	43.7	71.0	115.5	159.9	216.1
30- 43	13						377.1	360.6	348.2	305.5	238.5	136.4	66.0	40.4	34.3	44.9	68.6	112.1	159.9	208.9
43- 53	10						208.3	194.9	188.9	184.5	162.4	116.2	60.4	37.9	34.3	43.4	64.0	108.8	146.6	188.3
53	0	237.5	213.3	197.5	192.5	168.3	118.9	132.1	144.9	148.7	140.2	105.4	60.2	36.3	34.1	42.1	62.7	105.5	137.4	173.2
53- 60	7	184.4	159.4	141.2	128.0	103.1	87.1	107.7	124.8	130.2	127.1	97.4	61.0	34.8	33.8	40.7	62.4	102.4	128.5	142.9
60- 75	15	109.4	106.4	103.7	90.3	71.9	69.7	77.2	89.8	91.8	94.9	76.3	61.6	32.1	31.8	37.1	62.9	82.7	75.7	62.6
75- 100	25	53.5	58.1	60.5	55.0	49.8	48.4	49.1	58.6	57.8	61.2	56.3	43.4	34.0	26.2	31.0	48.6	36.2	29.2	24.1
100- 125	25	28.6	31.4	34.8	34.7	34.4	31.9	31.7	37.7	40.4	38.8	37.0	33.4	32.1	23.2	24.4	22.2	18.0	15.0	11.5
125- 150	25	20.8	21.5	23.5	24.5	24.1	22.3	22.3	25.9	31.3	30.1	30.5	29.8	22.4	20.5	18.3	16.2	10.4	9.9	7.7
150- 175	25	16.0	16.1	17.4	18.4	17.4	16.3	16.4	18.2	23.6	21.8	22.8	21.6	18.4	17.8	15.1	8.9	5.6	5.8	4.4
175- 200	25	11.8	11.8	13.0	13.4	11.7	11.3	11.5	12.6	17.2	15.9	17.6	16.9	16.7	14.3	11.9	7.3	4.4	3.8	2.4
200- 225	25	8.1	8.2	9.4	10.1	8.5	8.4	8.6	9.3	12.9	12.7	14.5	16.3	13.3	10.9	10.0	5.9	4.6	3.4	2.3

Table 3, (continuation)

Equivalent dose rate from JDisk, Toroid, and VA beam pipe for T= 10 y, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									679.7	253.8	102.5	43.2	23.2	18.4	25.6	42.1	68.7	95.9	126.1
5- 15	10						1591.3	1379.7	963.9	487.8	232.5	93.7	40.7	22.3	18.2	23.6	38.7	62.3	85.7	113.1
15- 30	15						615.5	532.8	438.1	306.6	190.4	88.5	40.9	22.7	18.4	23.0	36.3	57.9	80.7	110.1
30- 43	13						155.8	173.7	183.8	165.8	131.2	76.0	36.7	22.7	18.9	24.3	35.5	57.4	82.5	106.4
43- 53	10						143.5	118.7	105.4	101.3	89.2	64.3	33.3	21.3	18.9	23.4	33.1	56.9	75.6	94.3
53	0	149.9	148.5	147.0	142.5	125.0	84.0	83.0	82.8	82.1	77.0	58.2	33.2	20.3	18.9	22.4	32.5	55.5	70.8	87.5
53- 60	7	90.6	96.6	97.2	92.4	74.2	59.5	67.4	72.4	72.0	70.1	53.8	33.8	19.6	18.8	21.8	32.7	54.3	66.1	69.1
60- 75	15	51.0	61.7	68.5	63.4	50.0	46.9	49.4	53.9	52.4	52.9	42.2	34.8	17.9	17.6	19.4	34.1	43.7	36.5	25.0
75- 100	25	34.5	38.5	40.3	37.6	33.4	31.8	31.9	35.9	34.4	35.0	31.6	24.1	19.0	14.1	16.0	26.5	17.4	12.8	10.1
100- 125	25	20.7	22.3	23.9	23.5	22.6	21.3	21.1	23.7	24.4	22.9	21.0	18.9	17.8	12.4	12.7	10.9	8.5	7.0	5.7
125- 150	25	14.8	15.1	16.3	16.5	15.7	14.7	14.7	16.5	19.2	18.4	17.6	17.0	12.6	10.7	9.6	8.1	5.0	4.8	4.0
150- 175	25	11.4	11.5	12.0	12.5	11.6	11.1	11.2	12.0	14.5	13.4	13.5	12.1	10.4	9.3	7.8	4.5	2.5	2.9	2.4
175- 200	25	8.3	8.2	9.0	9.1	7.8	7.6	7.7	8.4	10.7	9.7	10.6	9.9	9.1	7.6	5.7	3.6	2.3	1.8	1.3
200- 225	25	5.8	5.7	6.6	6.9	5.8	5.6	5.8	6.2	8.0	7.6	8.4	9.5	7.2	6.0	4.9	2.7	2.2	1.6	1.2

Table 3, (continuation)

Equivalent dose rate from JDisk, Toroid, and VA beam pipe for T= 10 y, t=15d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									374.7	151.7	63.3	27.2	15.4	13.2	18.8	31.8	51.6	72.1	94.5
5- 15	10						910.4	784.6	544.1	282.6	138.5	57.8	25.5	14.6	12.9	17.3	28.9	47.0	64.5	85.6
15- 30	15						378.4	321.1	260.9	183.6	114.2	53.9	25.3	14.7	12.9	16.6	26.9	43.4	60.9	83.0
30- 43	13						108.3	114.2	117.9	104.3	81.1	46.8	23.0	14.5	13.0	17.4	26.2	42.9	62.1	80.1
43- 53	10						108.7	84.4	71.0	65.2	56.5	39.9	21.1	13.8	13.0	16.8	24.6	42.5	56.5	71.0
53	0	119.2	115.9	114.9	113.2	100.5	64.7	59.3	56.1	53.2	49.1	36.4	21.0	13.3	13.0	16.2	24.0	41.6	52.8	65.6
53- 60	7	72.6	77.6	78.1	74.3	59.2	44.7	47.9	49.5	47.1	44.8	33.9	21.3	12.9	12.8	15.5	24.1	40.4	49.4	52.2
60- 75	15	41.0	49.3	55.0	50.8	39.2	35.1	36.1	37.7	35.3	34.7	27.2	21.7	12.0	12.0	13.9	24.9	32.4	27.5	19.4
75- 100	25	27.0	30.4	32.1	29.7	25.4	23.8	23.8	25.8	24.0	23.8	20.9	15.9	12.6	9.8	11.4	19.3	12.9	9.7	7.4
100- 125	25	16.0	17.3	18.7	18.4	17.1	16.0	15.9	17.5	17.2	16.0	14.4	12.8	11.7	8.7	8.8	7.9	6.1	5.0	4.0
125- 150	25	11.4	11.8	12.7	12.6	11.8	11.3	11.4	12.4	13.6	12.8	12.0	11.4	8.6	7.4	6.8	5.8	3.5	3.4	2.9
150- 175	25	8.3	8.3	9.4	9.5	8.8	8.5	8.6	9.1	10.2	9.4	9.5	8.4	7.4	6.2	5.5	3.2	2.1	2.1	1.7
175- 200	25	6.1	6.1	6.8	6.8	6.0	5.9	6.0	6.6	7.6	7.0	7.5	6.9	6.2	5.2	4.1	2.6	1.7	1.5	1.1
200- 225	25	4.3	4.2	4.8	5.0	4.4	4.3	4.4	4.8	5.8	5.4	6.0	6.7	4.8	4.2	3.4	2.0	1.7	1.7	1.3

Table 3, (continuation)

Equivalent dose rate from JDisk, Toroid, and VA beam pipe for T= 10 y, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									102.0	45.4	21.1	9.3	6.0	5.8	8.8	14.9	24.5	34.1	44.5
5- 15	10						227.4	201.2	142.8	78.8	42.5	19.7	9.0	5.8	5.6	8.3	13.8	22.7	31.2	40.9
15- 30	15						106.1	91.4	76.3	55.8	36.6	18.3	9.2	5.5	5.4	8.0	12.8	21.2	29.4	39.9
30- 43	13						51.6	48.8	45.5	36.8	27.7	16.0	8.4	5.3	5.4	7.9	12.4	20.5	29.5	38.9
43- 53	10						72.6	48.4	33.7	26.0	20.7	13.9	7.6	5.1	5.4	7.4	11.4	19.9	27.0	34.5
53	0	84.5	83.2	82.5	80.6	70.4	42.6	34.0	27.6	22.2	18.6	12.9	7.6	5.0	5.3	7.1	11.3	19.4	25.1	32.0
53- 60	7	48.9	54.0	55.0	52.2	41.1	28.9	27.3	24.7	20.2	17.3	12.3	7.7	4.9	5.3	6.9	11.2	18.8	23.5	25.6
60- 75	15	27.3	33.8	38.1	35.2	26.4	22.4	21.5	19.8	16.5	14.4	10.6	7.9	4.8	5.0	6.2	10.9	15.1	13.5	10.7
75- 100	25	15.2	19.1	21.5	20.1	16.6	15.2	14.8	14.3	12.4	11.0	8.7	6.4	5.0	4.2	5.1	8.8	6.2	4.9	4.0
100- 125	25	9.4	10.6	12.0	11.8	10.5	10.1	10.1	9.9	9.0	8.1	6.9	5.6	4.6	3.8	4.0	3.6	3.0	2.6	2.0
125- 150	25	6.5	6.8	7.8	7.9	7.1	7.0	7.1	7.2	7.2	6.5	5.6	5.0	3.9	3.3	3.0	2.6	1.8	1.7	1.3
150- 175	25	4.8	4.8	5.5	5.5	5.1	5.0	5.1	5.2	5.2	4.9	4.6	3.8	3.5	2.8	2.4	1.6	1.1	1.1	0.9
175- 200	25	3.4	3.5	4.0	4.0	3.5	3.6	3.7	3.9	4.0	3.5	3.8	3.3	2.8	2.2	1.9	1.3	1.0	0.9	0.7
200- 225	25	2.6	2.5	3.0	3.0	2.6	2.6	2.7	3.0	3.1	2.8	2.8	2.9	2.1	1.9	1.5	1.2	1.0	1.0	0.6

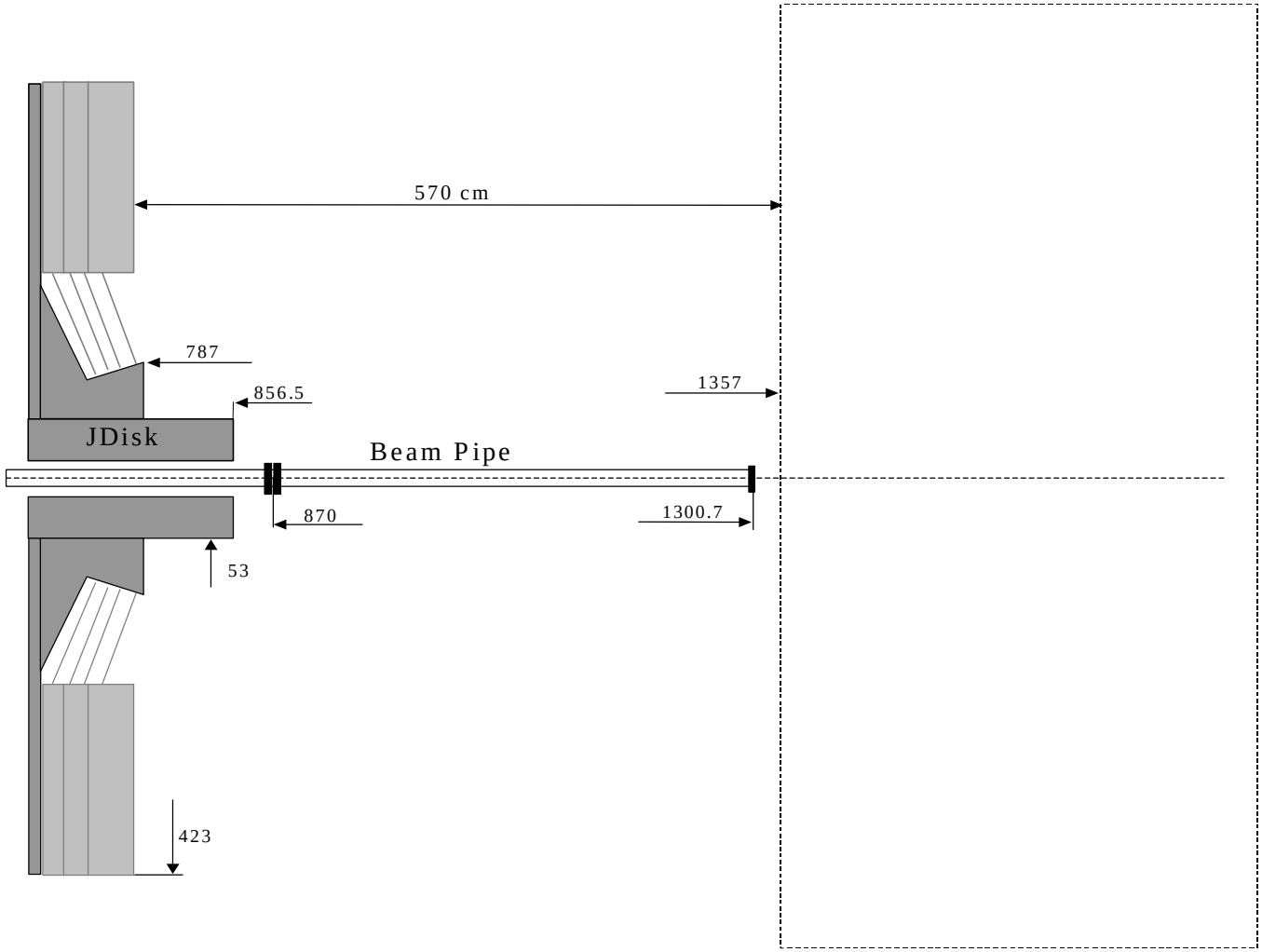

Fig.4. Access scenario to the JDisk, VA and VT.

Table 4

Equivalent dose rate from JDisk, VA and VT beam pipe for T= 100d, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	223.0	62.7	42.9
5- 15	10						2802.2	2554.8	2324.1	1948.5	1667.8	1476.9	1340.7	753.2	394.1	338.0	491.4	170.1	60.0	42.2
15- 30	15						1215.6	1097.0	1011.9	895.2	778.3	652.6	561.6	333.0	178.9	149.9	164.4	100.8	52.5	39.1
30- 43	13						468.7	461.7	477.9	479.4	456.9	399.4	331.4	210.2	117.7	96.1	92.0	65.7	44.2	35.3
43- 53	10						251.1	260.8	283.1	305.6	312.2	294.8	243.5	160.7	94.1	75.3	67.7	50.9	38.5	32.3
53	0	196.9	176.0	173.4	188.7	196.2	175.7	198.6	228.7	253.9	267.3	257.2	216.3	143.4	86.0	68.3	60.1	46.1	36.1	30.9
53- 60	7	175.8	146.2	137.4	146.7	150.2	150.6	174.5	204.1	228.3	245.2	238.1	205.4	135.3	82.2	65.2	56.9	44.1	35.1	30.2
60- 75	15	116.8	109.4	110.3	114.3	116.9	122.8	132.2	152.7	167.8	184.4	183.3	170.9	111.2	70.3	55.5	47.3	37.6	31.2	27.6
75- 100	25	67.3	69.1	74.7	79.7	85.3	87.4	89.3	102.8	109.3	120.5	126.2	115.9	87.8	55.5	44.2	36.8	30.1	26.2	23.9
100- 125	25	42.0	44.6	50.3	56.1	61.0	60.5	60.7	68.6	74.9	78.0	82.3	80.3	68.0	44.3	35.0	28.4	24.2	21.8	20.3
125- 150	25	32.7	33.9	37.5	42.0	44.8	44.1	44.2	48.9	56.1	57.6	61.5	61.8	48.8	37.0	28.9	23.8	19.4	18.1	17.3
150- 175	25	26.6	27.2	29.5	33.0	34.2	33.9	34.2	36.6	43.1	43.3	45.2	45.1	38.1	32.0	25.1	18.0	14.7	13.9	13.6
175- 200	25	21.6	22.0	24.2	26.6	26.7	26.5	26.8	28.4	33.6	34.0	35.0	34.3	32.8	26.9	21.2	16.2	12.9	11.4	10.8
200- 225	25	17.9	18.2	20.0	21.9	21.6	21.6	21.7	22.8	26.5	27.3	28.5	29.2	27.7	22.2	19.0	14.3	12.0	10.5	9.9

Table 4, (continuation)

Equivalent dose rate from JDisk, VA and VT beam pipe for T= 100d, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	159.2	43.8	29.8
5- 15	10						1557.1	1426.5	1380.7	1249.8	1125.4	1034.3	955.1	536.8	280.7	241.0	351.1	121.3	41.9	29.1
15- 30	15						656.3	599.9	574.6	539.8	495.2	441.3	392.7	234.3	126.1	106.2	116.9	71.7	36.5	27.1
30- 43	13						217.4	237.0	265.0	283.2	284.6	262.6	227.6	145.7	81.8	67.3	64.8	46.0	30.6	24.3
43- 53	10						157.7	155.7	165.7	183.4	193.0	190.9	164.9	110.5	64.5	52.0	47.2	35.3	26.3	22.0
53	0	102.6	101.5	107.1	121.6	129.3	116.2	123.7	137.4	152.9	164.9	165.8	145.4	98.2	58.8	47.0	41.6	31.8	24.7	21.1
53- 60	7	74.2	76.4	82.5	94.7	100.2	99.8	110.3	124.6	138.7	151.8	153.6	137.6	92.5	56.3	44.8	39.3	30.2	23.9	20.5
60- 75	15	51.4	57.1	65.3	73.7	77.3	80.9	85.0	95.6	104.2	115.3	117.9	112.8	75.6	47.8	37.8	32.3	25.6	21.2	18.7
75- 100	25	42.5	43.3	46.7	51.6	55.9	57.5	58.3	65.3	69.6	76.1	81.0	76.1	58.6	37.5	29.8	24.7	20.3	17.5	15.9
100- 125	25	28.9	30.1	33.3	37.1	40.2	40.4	40.5	44.6	48.3	50.3	53.2	52.8	44.6	29.6	23.5	19.1	16.1	14.4	13.4
125- 150	25	22.8	23.4	25.5	28.3	30.0	29.7	29.8	32.3	36.4	37.7	39.8	40.2	32.3	24.3	19.4	15.9	13.0	12.0	11.4
150- 175	25	18.5	18.8	20.3	22.4	23.4	23.1	23.3	24.6	28.0	28.5	29.6	29.3	25.4	20.6	16.4	12.4	10.3	9.6	9.2
175- 200	25	15.1	15.3	16.7	18.1	18.3	18.3	18.6	19.5	22.2	22.4	23.1	22.8	21.4	17.6	13.7	10.8	8.9	7.9	7.5
200- 225	25	12.6	12.7	13.8	15.2	15.0	15.0	15.2	15.6	17.6	18.2	18.8	19.2	18.0	14.8	12.2	9.4	7.9	7.2	6.8

Table 4, (continuation)

Equivalent dose rate from JDisk, VA and VT beam pipe for T= 100d, t=15d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	94.8	26.1	17.8
5- 15	10						807.5	741.9	748.6	714.7	663.5	618.2	573.0	321.9	166.6	142.8	209.3	72.0	25.0	17.4
15- 30	15						364.2	331.0	319.1	305.5	286.9	260.7	234.1	139.8	74.6	62.6	69.3	42.5	21.9	16.0
30- 43	13						130.9	138.3	152.7	162.8	164.3	153.9	135.2	86.5	48.4	39.6	38.2	27.2	18.1	14.4
43- 53	10						94.1	91.1	96.5	106.3	112.2	111.9	97.8	65.5	38.2	30.8	27.9	20.9	15.6	13.0
53	0	65.2	63.6	66.4	75.0	79.1	69.6	72.6	80.5	89.0	96.2	97.0	85.9	58.2	34.7	27.9	24.6	18.7	14.6	12.5
53- 60	7	48.5	48.6	51.7	58.8	61.3	59.6	64.9	72.9	81.1	88.5	89.9	81.2	54.9	33.2	26.5	23.3	17.9	14.0	12.2
60- 75	15	33.1	35.9	41.0	45.4	46.9	48.2	50.6	56.4	61.2	67.5	69.3	66.2	44.9	28.3	22.3	19.2	15.1	12.4	11.0
75- 100	25	27.5	27.5	29.2	31.9	33.9	34.6	35.1	39.0	41.1	45.0	47.6	45.0	34.5	22.2	17.6	14.6	11.8	10.3	9.4
100- 125	25	18.2	19.0	20.8	22.8	24.3	24.5	24.7	26.9	28.7	29.8	31.5	31.2	26.3	17.4	13.8	11.2	9.5	8.5	7.9
125- 150	25	14.2	14.5	15.8	17.3	18.2	18.2	18.3	19.6	21.5	22.3	23.6	23.8	19.2	14.3	11.3	9.3	7.7	7.1	6.7
150- 175	25	11.6	11.8	12.5	13.7	14.2	14.2	14.3	15.1	16.6	17.1	17.7	17.5	15.2	12.2	9.7	7.3	6.1	5.7	5.3
175- 200	25	9.3	9.6	10.3	11.0	11.0	11.2	11.2	11.9	13.3	13.5	13.7	13.6	12.8	10.2	8.1	6.5	5.3	4.7	4.5
200- 225	25	7.8	7.8	8.5	9.2	9.1	9.2	9.3	9.6	10.5	10.8	11.2	11.3	10.6	8.6	7.3	5.5	4.8	4.3	4.1

Table 4, (continuation)

Equivalent dose rate from JDisk, VA and VT beam pipe for T= 100d, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	28.4	7.7	5.2
5- 15	10						159.4	152.0	177.0	192.1	189.5	181.7	169.7	94.9	48.5	41.4	62.2	21.6	7.3	5.1
15- 30	15						83.6	76.8	77.8	79.8	79.0	75.1	68.7	40.9	21.7	18.3	20.5	12.7	6.5	4.7
30- 43	13						43.5	41.6	42.9	44.3	45.1	43.6	39.5	25.2	13.9	11.5	11.2	8.1	5.4	4.2
43- 53	10						33.6	29.6	29.0	30.1	31.5	31.6	28.4	19.0	11.1	8.9	8.0	6.1	4.5	3.8
53	0	27.8	26.4	27.0	29.0	29.4	23.8	23.1	24.2	25.6	27.1	27.3	24.8	16.9	9.9	8.1	7.1	5.5	4.3	3.7
53- 60	7	20.6	19.9	20.5	22.0	21.7	19.8	20.6	22.0	23.5	25.1	25.6	23.3	16.0	9.5	7.7	6.7	5.2	4.1	3.6
60- 75	15	13.6	14.4	15.8	16.7	16.2	15.9	16.3	17.3	18.2	19.4	19.9	18.8	13.1	8.1	6.4	5.5	4.4	3.6	3.3
75- 100	25	10.0	10.2	10.7	11.3	11.4	11.4	11.4	12.2	12.6	13.2	13.9	13.0	10.0	6.4	4.9	4.2	3.5	3.0	2.7
100- 125	25	6.2	6.6	7.2	7.9	8.0	8.0	8.1	8.6	8.9	9.1	9.4	9.1	7.5	4.9	3.9	3.2	2.7	2.5	2.3
125- 150	25	4.7	4.9	5.4	5.9	5.9	6.0	6.1	6.3	6.7	6.8	7.0	6.8	5.7	4.2	3.2	2.7	2.2	2.1	1.8
150- 175	25	3.8	4.0	4.2	4.4	4.6	4.6	4.6	4.9	5.1	5.2	5.4	5.2	4.5	3.5	2.7	2.2	1.8	1.7	1.6
175- 200	25	3.0	3.1	3.3	3.5	3.5	3.6	3.7	3.8	4.0	4.1	4.2	4.1	3.7	2.9	2.4	1.9	1.6	1.4	1.4
200- 225	25	2.6	2.6	2.8	2.9	2.9	2.9	3.0	3.1	3.3	3.3	3.5	3.5	3.1	2.5	2.2	1.7	1.5	1.4	1.2

Table 4, (continuation)

Equivalent dose rate from JDisk, VA and VT beam pipe for T= 10 y, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	245.8	69.2	47.5
5- 15	10						3138.2	2862.1	2581.5	2156.5	1842.3	1625.1	1469.7	826.1	432.1	370.4	541.0	187.7	66.3	46.5
15- 30	15						1355.4	1218.9	1127.3	998.6	864.2	721.0	617.9	365.8	196.5	164.4	181.0	111.3	57.9	43.2
30- 43	13						531.2	521.6	538.8	538.4	512.0	442.2	365.3	231.3	129.6	105.6	101.2	72.3	48.8	39.0
43- 53	10						324.5	315.1	325.5	345.3	349.2	327.4	268.7	176.9	103.6	82.8	74.6	56.2	42.4	35.6
53	0	272.7	250.8	246.1	265.0	263.6	222.4	238.3	263.8	287.0	299.5	286.0	239.1	158.2	94.6	75.1	66.3	50.9	39.9	34.1
53- 60	7	218.9	196.1	188.5	197.5	193.3	184.6	208.0	236.3	258.8	274.8	265.1	227.3	149.3	90.7	71.8	62.8	48.5	38.6	33.4
60- 75	15	141.2	140.0	146.1	149.5	145.8	148.5	157.9	178.1	191.5	207.9	204.5	189.5	122.6	77.5	61.1	52.2	41.4	34.5	30.6
75- 100	25	80.8	86.9	95.2	100.5	103.8	105.2	106.9	120.6	126.1	137.0	141.6	128.9	97.4	61.3	48.7	40.6	33.2	29.0	26.5
100- 125	25	51.2	55.0	62.1	68.6	73.0	72.1	72.4	80.6	86.6	89.2	93.0	89.9	75.5	49.1	38.8	31.6	26.9	24.2	22.5
125- 150	25	39.4	40.7	45.4	50.5	53.0	52.1	52.4	57.3	64.9	66.2	69.7	69.4	54.4	41.2	32.1	26.4	21.6	20.1	19.2
150- 175	25	31.6	32.2	35.3	39.1	40.3	39.8	40.1	42.8	49.7	49.6	51.5	50.5	42.7	35.5	27.9	20.0	16.4	15.4	15.0
175- 200	25	25.5	25.9	28.5	31.2	31.1	31.1	31.5	33.3	38.8	38.7	39.9	38.6	36.8	30.1	23.6	18.1	14.2	12.7	12.0
200- 225	25	20.9	21.2	23.5	25.8	25.1	25.2	25.5	26.6	30.7	31.1	32.5	33.0	31.0	25.0	21.3	15.8	13.3	11.7	11.1

Table 4, (continuation)

Equivalent dose rate from JDisk, VA and VT beam pipe for T= 10 y, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	180.6	50.2	34.1
5- 15	10						1871.2	1704.6	1632.1	1450.8	1292.8	1178.3	1082.7	608.9	318.0	273.1	398.9	137.6	48.0	33.5
15- 30	15						792.4	722.9	690.4	639.7	579.0	508.2	447.7	266.7	143.2	120.1	132.5	81.2	41.9	31.0
30- 43	13						271.6	294.5	326.6	340.3	335.7	304.7	260.9	166.5	93.5	76.5	73.6	52.4	34.9	27.9
43- 53	10						231.1	209.1	208.0	222.0	228.9	222.7	189.8	126.5	74.0	59.5	53.7	40.4	30.3	25.3
53	0	176.6	177.0	184.0	197.2	196.7	161.7	162.8	172.3	185.9	196.3	193.8	167.6	112.6	67.5	53.8	47.6	36.4	28.4	24.2
53- 60	7	116.8	124.6	133.2	144.9	142.1	132.8	142.6	156.2	168.7	180.9	179.8	158.9	106.2	64.5	51.4	45.1	34.7	27.5	23.7
60- 75	15	75.4	87.4	100.8	108.3	105.7	106.4	110.1	120.4	127.5	138.0	138.7	131.2	87.1	55.1	43.4	37.3	29.4	24.4	21.5
75- 100	25	55.5	60.6	66.9	72.1	74.3	74.8	75.6	82.8	86.1	92.4	96.1	88.9	68.0	43.2	34.3	28.6	23.3	20.2	18.5
100- 125	25	38.2	40.6	45.0	49.4	52.0	51.9	52.1	56.4	59.7	61.2	63.6	62.0	51.9	34.4	27.2	22.1	18.7	16.8	15.6
125- 150	25	29.3	30.1	33.3	36.6	38.0	37.6	37.9	40.7	44.9	46.0	47.5	47.6	37.9	28.4	22.4	18.4	15.1	14.0	13.3
150- 175	25	23.6	24.0	26.0	28.5	29.1	29.1	29.4	31.0	34.5	34.7	35.8	34.7	29.9	24.2	19.1	14.3	11.7	11.0	10.6
175- 200	25	19.0	19.1	21.1	22.7	22.7	22.8	23.1	24.2	27.3	27.2	27.9	27.1	25.3	20.5	15.9	12.6	10.3	9.1	8.7
200- 225	25	15.6	15.7	17.4	18.8	18.4	18.4	18.7	19.4	21.7	21.9	22.7	23.1	21.1	17.5	14.2	10.9	9.3	8.3	7.9

Table 4, (continuation)

Equivalent dose rate from JDisk, VA and VT beam pipe for T= 10 y, t=15d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	117.0	32.6	22.2
5- 15	10						1091.9	995.2	977.1	907.6	827.3	761.4	700.8	394.0	204.6	175.4	257.9	89.1	31.1	21.5
15- 30	15						492.6	444.2	424.3	399.6	366.3	326.0	288.8	172.0	92.0	77.2	85.4	52.4	27.0	20.1
30- 43	13						183.2	192.4	210.2	217.3	213.6	195.0	168.0	107.0	59.9	49.0	47.4	33.7	22.6	17.9
43- 53	10						165.4	142.9	137.4	143.2	147.1	142.3	122.1	81.3	47.4	38.1	34.6	26.0	19.4	16.2
53	0	136.4	134.2	138.6	148.6	146.7	114.9	111.0	114.0	120.3	126.3	124.1	107.7	72.5	43.2	34.5	30.6	23.5	18.2	15.5
53- 60	7	89.4	95.5	101.2	108.1	103.1	92.1	96.6	103.7	109.6	116.5	115.3	102.0	68.5	41.3	32.9	28.9	22.3	17.6	15.1
60- 75	15	56.6	65.8	75.7	79.7	75.2	73.5	75.4	80.6	83.8	89.6	89.6	83.9	56.1	35.2	27.9	23.9	18.8	15.5	13.8
75- 100	25	40.5	44.5	49.2	52.0	51.8	51.5	52.1	55.9	57.3	60.7	62.4	57.5	43.8	27.8	21.9	18.4	15.0	13.0	11.8
100- 125	25	27.1	28.9	32.3	35.0	36.1	35.7	35.9	38.5	39.9	40.6	41.7	40.4	33.3	22.1	17.3	14.1	12.1	10.7	10.0
125- 150	25	20.6	21.4	23.6	25.6	26.0	25.9	26.2	27.9	30.0	30.5	31.2	30.9	24.5	18.3	14.5	11.8	9.7	9.0	8.5
150- 175	25	16.5	16.7	18.2	19.7	19.9	20.0	20.1	21.1	23.0	23.1	23.6	22.7	19.7	15.4	12.4	9.3	7.6	7.0	6.8
175- 200	25	13.1	13.3	14.7	15.6	15.4	15.6	15.7	16.6	18.3	18.2	18.5	17.8	16.4	13.3	10.4	8.2	6.7	6.1	5.7
200- 225	25	10.8	10.8	11.9	12.8	12.6	12.6	12.8	13.4	14.6	14.6	15.0	15.1	13.7	11.4	9.2	7.1	6.1	5.9	5.5

Table 4, (continuation)

Equivalent dose rate from JDisk, VA and VT beam pipe for T= 10 y, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5																	44.0	12.2	8.3
5- 15	10						294.2	278.8	302.6	309.8	297.2	279.7	257.8	144.8	75.0	64.2	96.3	33.4	11.5	8.1
15- 30	15						148.1	136.7	136.6	135.5	129.7	118.5	106.0	63.0	33.6	28.2	31.8	19.5	10.0	7.4
30- 43	13						79.0	77.5	79.4	78.4	76.5	70.5	61.6	39.0	21.8	18.0	17.5	12.6	8.3	6.7
43- 53	10						93.3	69.8	58.0	54.7	53.9	51.5	44.6	29.7	17.2	13.9	12.7	9.6	7.2	5.9
53	0	90.8	89.9	91.1	93.4	87.2	60.9	52.8	48.7	46.8	46.9	45.1	39.3	26.4	15.6	12.5	11.2	8.6	6.8	5.7
53- 60	7	55.1	60.5	63.4	64.5	57.0	46.2	45.1	44.5	43.1	43.6	42.2	37.2	25.0	14.9	11.9	10.6	8.2	6.6	5.5
60- 75	15	33.1	39.8	45.6	45.7	39.5	36.4	35.8	35.5	34.3	34.5	33.4	30.5	20.8	12.8	10.1	8.8	6.9	5.8	5.1
75- 100	25	20.3	24.3	27.6	28.1	26.1	25.2	25.0	25.3	24.5	24.5	23.8	21.5	16.1	10.2	7.9	6.7	5.5	4.7	4.4
100- 125	25	13.4	14.7	16.8	17.7	17.3	17.2	17.3	17.5	17.2	17.0	16.7	15.5	12.2	8.2	6.3	5.1	4.4	4.0	3.8
125- 150	25	10.0	10.4	11.7	12.5	12.1	12.2	12.3	12.7	13.0	12.8	12.5	11.9	9.4	6.9	5.3	4.3	3.7	3.3	3.1
150- 175	25	7.9	8.0	8.7	9.2	9.2	9.2	9.3	9.6	9.8	9.8	9.7	8.9	7.7	5.8	4.5	3.5	2.9	2.7	2.5
175- 200	25	6.0	6.1	6.8	7.2	6.9	7.1	7.2	7.6	7.9	7.6	7.7	7.0	6.3	5.0	3.8	3.1	2.6	2.4	2.3
200- 225	25	4.9	4.8	5.5	5.7	5.6	5.7	5.8	6.2	6.4	6.1	6.2	6.1	5.2	4.4	3.5	2.8	2.4	2.3	2.1

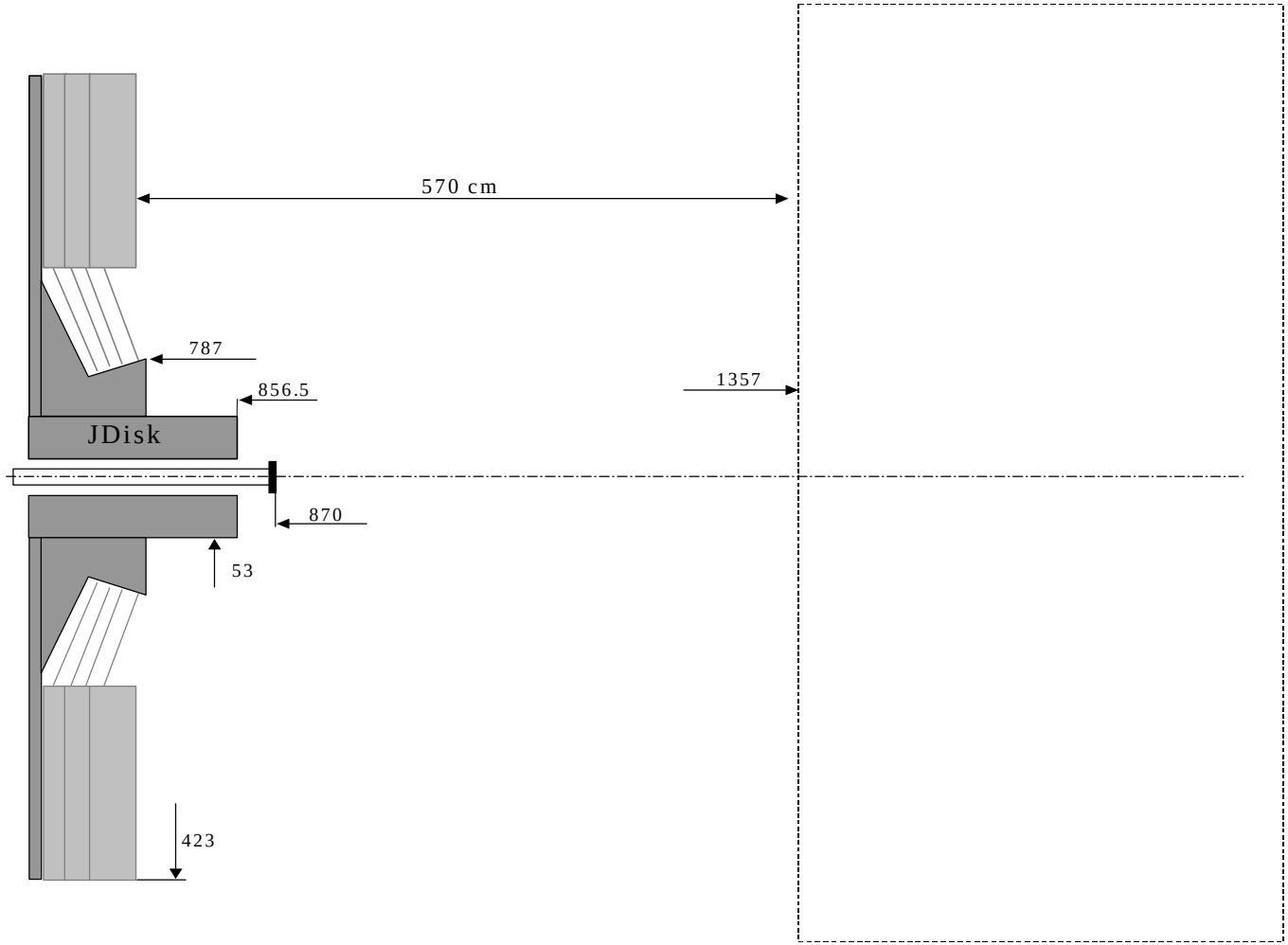

Fig.5. Access scenario to the JDisk and VA.

Table 5

Equivalent dose rate from JDisk and VA beam pipe for T= 100d, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									1061.5	396.2	155.7	61.0	27.4	12.3	7.6	5.9	5.1	5.8	5.5
5- 15	10						2455.9	2153.4	1502.4	765.3	365.8	143.5	57.3	25.9	12.0	7.8	6.1	5.2	5.8	5.5
15- 30	15						995.9	860.9	699.4	483.7	298.5	134.0	57.6	26.6	12.5	8.0	6.2	5.2	5.8	5.5
30- 43	13						323.9	310.5	299.8	262.4	202.5	114.8	51.6	26.7	13.3	8.7	6.8	5.8	5.8	5.5
43- 53	10						140.6	146.8	154.3	154.4	137.2	96.8	46.8	24.6	13.5	9.0	7.1	6.0	5.8	5.5
53	0	161.6	138.6	125.5	118.8	105.3	77.4	97.5	116.0	123.4	117.3	87.1	46.6	23.1	13.5	9.1	7.2	6.1	5.8	5.5
53- 60	7	141.1	109.5	90.7	79.5	64.0	57.7	79.0	98.2	106.5	105.6	79.7	47.3	21.9	13.2	9.1	7.2	6.2	5.8	5.5
60- 75	15	84.5	75.3	68.1	56.5	45.6	46.8	54.6	68.0	72.3	76.5	61.0	47.8	19.3	12.5	9.0	7.2	6.3	5.8	5.5
75- 100	25	39.0	39.6	39.4	34.5	32.0	31.5	32.5	42.0	42.5	46.5	43.2	31.4	21.0	11.0	9.0	7.1	6.2	5.8	5.5
100- 125	25	18.1	19.8	21.8	21.5	21.8	19.8	19.5	25.3	28.3	27.5	26.3	22.9	19.8	10.2	8.2	6.1	5.7	5.4	5.2
125- 150	25	12.5	13.0	14.1	14.7	14.7	13.1	12.9	16.2	21.5	20.6	21.1	20.1	12.3	9.9	7.5	5.8	4.3	4.4	4.5
150- 175	25	9.4	9.5	10.0	10.9	10.3	9.3	9.4	11.0	16.3	14.9	14.6	13.4	9.6	9.9	7.4	3.1	1.9	2.2	2.5
175- 200	25	6.8	6.9	7.8	8.3	7.2	6.6	6.8	7.8	12.2	11.5	11.0	9.4	9.9	8.5	6.3	3.5	1.8	1.1	1.1
200- 225	25	5.1	5.1	6.0	6.6	5.4	5.2	5.2	5.8	8.9	8.9	9.1	9.1	8.8	6.7	6.2	3.3	2.3	1.5	1.3

Table 5, (continuation)

Equivalent dose rate from JDisk and VA beam pipe for T= 100d, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									555.6	200.6	77.7	30.8	13.4	6.9	4.8	3.8	3.2	2.9	2.8
5- 15	10						1306.8	1136.3	786.6	394.3	184.2	71.3	28.6	12.7	6.9	4.7	3.7	3.2	2.9	2.8
15- 30	15						498.0	429.4	348.9	242.5	148.5	66.9	28.9	13.4	6.8	4.7	3.7	3.1	2.9	2.8
30- 43	13						112.6	127.7	136.4	126.4	100.9	57.1	25.6	13.5	6.8	4.7	3.7	3.1	2.9	2.8
43- 53	10						78.0	73.4	72.6	74.2	66.4	47.9	23.0	12.4	6.7	4.6	3.7	3.1	2.9	2.8
53	0	77.1	74.5	72.5	71.0	63.7	45.1	50.6	55.9	58.7	56.6	42.9	22.9	11.5	6.7	4.6	3.7	3.1	2.9	2.8
53- 60	7	49.1	49.9	48.9	46.2	37.9	32.6	41.3	48.0	50.7	51.1	39.1	23.4	10.8	6.7	4.6	3.6	3.1	2.9	2.8
60- 75	15	28.1	32.5	34.8	31.9	25.7	26.1	28.9	34.4	35.3	37.3	29.6	23.9	9.4	6.3	4.5	3.6	3.2	2.9	2.8
75- 100	25	22.1	22.0	21.2	18.9	17.5	17.1	17.3	21.5	21.4	22.8	21.1	15.2	10.4	5.5	4.5	3.5	3.1	2.8	2.7
100- 125	25	11.7	12.3	12.7	12.1	12.0	11.0	10.8	13.3	14.7	13.8	12.8	11.3	9.8	5.1	4.2	3.1	2.8	2.7	2.6
125- 150	25	8.2	8.3	8.6	8.5	8.3	7.3	7.2	8.8	11.4	11.0	10.6	10.1	6.0	4.8	4.0	3.0	2.1	2.2	2.2
150- 175	25	6.1	6.1	6.2	6.5	6.1	5.5	5.5	6.2	8.6	8.0	7.5	6.5	4.8	4.7	3.7	1.7	1.1	1.1	1.2
175- 200	25	4.4	4.4	4.9	5.0	4.2	3.9	4.1	4.6	6.7	6.2	5.8	4.9	4.9	4.3	3.0	1.7	0.9	0.6	0.6
200- 225	25	3.3	3.3	3.7	4.1	3.3	3.1	3.2	3.4	4.9	4.9	4.8	4.7	4.4	3.6	3.0	1.4	1.0	0.7	0.6

Table 5, (continuation)

Equivalent dose rate from JDisk and VA beam pipe for T= 100d, t=15d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									267.9	104.8	41.6	16.7	7.4	3.4	2.2	1.7	1.4	1.5	1.5
5- 15	10						656.7	567.1	390.8	199.1	95.3	37.7	15.4	6.8	3.2	2.1	1.7	1.4	1.5	1.5
15- 30	15						268.6	228.2	183.0	126.4	77.9	35.1	15.1	7.0	3.3	2.1	1.7	1.5	1.5	1.5
30- 43	13						67.8	72.5	75.2	68.3	53.6	30.3	13.6	7.1	3.6	2.3	1.8	1.6	1.5	1.5
43- 53	10						46.0	41.6	40.4	40.5	36.0	25.7	12.4	6.5	3.6	2.4	1.9	1.6	1.5	1.5
53	0	49.9	47.3	45.6	44.5	39.6	26.8	28.6	31.4	32.3	30.9	23.0	12.2	6.1	3.6	2.5	1.9	1.6	1.5	1.5
53- 60	7	33.4	32.6	31.4	29.6	23.7	19.1	23.3	26.8	28.1	27.8	21.0	12.5	5.8	3.5	2.5	2.0	1.6	1.5	1.5
60- 75	15	19.0	21.1	22.7	20.3	15.9	15.2	16.8	19.5	19.7	20.6	16.2	12.7	5.1	3.4	2.4	2.0	1.6	1.5	1.5
75- 100	25	15.2	14.6	13.9	12.2	10.7	10.3	10.4	12.5	12.1	12.9	11.6	8.4	5.6	3.0	2.4	1.9	1.6	1.5	1.5
100- 125	25	7.8	8.2	8.4	7.8	7.3	6.8	6.8	8.1	8.4	7.9	7.2	6.3	5.4	2.8	2.3	1.6	1.5	1.5	1.4
125- 150	25	5.4	5.4	5.6	5.5	5.1	4.7	4.7	5.4	6.5	6.2	6.0	5.7	3.4	2.7	2.1	1.6	1.2	1.2	1.2
150- 175	25	4.1	4.1	4.1	4.1	3.8	3.6	3.6	4.0	5.0	4.7	4.4	3.8	2.8	2.6	2.1	0.9	0.6	0.6	0.6
175- 200	25	2.9	3.0	3.2	3.1	2.6	2.6	2.6	2.9	4.0	3.7	3.3	2.8	2.8	2.3	1.7	1.0	0.6	0.3	0.3
200- 225	25	2.2	2.1	2.4	2.5	2.1	2.0	2.1	2.2	2.9	2.9	2.8	2.7	2.5	1.9	1.7	0.8	0.6	0.4	0.4

Table 5, (continuation)

Equivalent dose rate from JDisk and VA beam pipe for T= 100d, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									48.9	21.1	9.2	3.7	1.8	0.9	0.5	0.5	0.4	0.4	0.4
5- 15	10						114.4	99.9	70.2	37.9	19.6	8.4	3.5	1.7	0.8	0.5	0.5	0.4	0.4	0.4
15- 30	15						55.1	46.1	37.2	26.2	16.6	7.8	3.5	1.6	0.8	0.6	0.4	0.4	0.4	0.4
30- 43	13						24.7	22.0	19.7	16.1	12.1	6.7	3.2	1.6	0.8	0.6	0.4	0.4	0.4	0.4
43- 53	10						19.2	14.8	12.2	10.5	8.7	5.9	2.9	1.5	0.9	0.6	0.4	0.4	0.4	0.4
53	0	23.2	21.6	20.8	19.9	17.7	11.0	10.0	9.5	8.7	7.6	5.3	2.9	1.5	0.8	0.6	0.4	0.4	0.4	0.4
53- 60	7	16.1	15.2	14.4	13.3	10.5	7.7	8.2	8.3	7.7	7.0	5.0	2.9	1.4	0.8	0.6	0.4	0.4	0.4	0.4
60- 75	15	9.4	10.0	10.3	9.2	7.0	6.0	6.2	6.3	5.8	5.5	4.1	2.9	1.3	0.7	0.5	0.4	0.4	0.4	0.4
75- 100	25	6.3	6.3	6.1	5.4	4.5	4.2	4.1	4.3	3.9	3.7	3.1	2.1	1.4	0.7	0.5	0.4	0.4	0.4	0.4
100- 125	25	3.1	3.4	3.5	3.4	3.0	2.8	2.8	3.0	2.8	2.6	2.2	1.7	1.3	0.6	0.5	0.4	0.4	0.4	0.4
125- 150	25	2.1	2.2	2.4	2.3	2.0	2.0	2.0	2.1	2.2	2.0	1.8	1.5	1.0	0.7	0.5	0.4	0.3	0.3	0.2
150- 175	25	1.6	1.7	1.7	1.6	1.5	1.5	1.5	1.5	1.6	1.5	1.4	1.1	0.8	0.7	0.5	0.3	0.2	0.2	0.2
175- 200	25	1.1	1.1	1.2	1.2	1.0	1.0	1.1	1.2	1.3	1.2	1.1	0.9	0.8	0.6	0.5	0.3	0.2	0.1	0.1
200- 225	25	0.9	0.9	1.0	0.9	0.8	0.8	0.9	0.9	1.0	0.9	1.0	0.9	0.7	0.5	0.5	0.3	0.2	0.2	0.1

Table 5, (continuation)

Equivalent dose rate from JDisk and VA beam pipe for T= 10 y, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									1192.7	448.8	178.5	69.5	31.4	15.2	10.3	8.2	7.0	6.5	6.2
5- 15	10						2759.2	2422.7	1682.2	860.2	414.0	163.7	65.3	29.7	15.2	10.3	8.2	7.0	6.5	6.2
15- 30	15						1115.2	960.6	785.4	548.0	338.5	152.8	66.0	30.3	15.2	10.3	8.2	7.0	6.5	6.2
30- 43	13						372.7	356.2	343.7	300.7	233.4	130.6	58.9	30.5	15.2	10.3	8.2	7.0	6.5	6.2
43- 53	10						203.9	190.5	184.4	179.8	157.4	110.5	53.3	28.1	15.2	10.2	8.2	7.0	6.5	6.2
53	0	234.0	209.8	193.7	188.4	164.1	114.5	127.7	140.4	144.0	135.2	99.7	53.2	26.5	15.2	10.3	8.2	7.0	6.5	6.2
53- 60	7	180.9	155.9	137.4	123.9	98.9	82.7	103.3	120.3	125.5	122.1	91.7	54.0	25.1	15.1	10.3	8.2	7.0	6.5	6.2
60- 75	15	105.8	102.8	99.9	86.2	67.6	65.3	72.8	85.3	87.0	89.8	70.6	54.6	22.1	14.2	10.2	8.2	7.0	6.5	6.2
75- 100	25	49.9	54.5	56.6	50.9	45.5	44.0	44.7	54.0	53.0	56.1	50.6	36.4	24.2	12.5	10.1	8.1	7.0	6.5	6.2
100- 125	25	25.0	27.8	30.9	30.6	30.1	27.6	27.3	33.2	35.6	33.8	31.7	27.0	22.8	11.8	9.5	7.0	6.6	6.2	6.0
125- 150	25	17.2	17.9	19.8	20.6	19.9	18.1	18.1	21.6	26.9	25.6	25.4	23.8	14.4	11.6	8.7	6.7	5.0	5.1	5.1
150- 175	25	12.8	12.9	14.0	14.9	14.0	12.9	13.0	14.8	20.3	18.6	18.0	15.9	11.5	11.3	8.5	3.7	2.3	2.6	2.9
175- 200	25	9.3	9.3	10.6	11.3	9.7	9.3	9.5	10.7	15.3	14.1	13.5	11.4	11.7	9.9	7.3	4.1	2.1	1.5	1.4
200- 225	25	6.9	6.9	8.2	9.0	7.3	7.1	7.3	8.0	11.5	11.1	11.2	11.0	10.3	8.0	7.2	3.8	2.7	1.8	1.6

Table 5, (continuation)

Equivalent dose rate from JDisk and VA beam pipe for T= 10 y, t=5d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									676.9	250.8	99.1	39.0	17.2	7.7	4.8	3.7	3.2	3.6	3.5
5- 15	10						1588.8	1377.1	961.3	485.0	229.5	90.4	36.5	16.4	7.6	4.9	3.9	3.3	3.6	3.5
15- 30	15						613.0	530.2	435.5	303.9	187.5	85.2	36.8	16.9	7.9	5.0	3.9	3.3	3.6	3.5
30- 43	13						153.3	171.1	181.2	163.1	128.3	72.7	32.7	17.0	8.5	5.5	4.3	3.7	3.6	3.5
43- 53	10						141.0	116.1	102.8	98.6	86.3	61.1	29.3	15.6	8.5	5.7	4.5	3.8	3.6	3.5
53	0	147.9	146.5	144.9	140.2	122.5	81.5	80.4	80.2	79.4	74.1	55.0	29.2	14.6	8.5	5.7	4.5	3.9	3.6	3.5
53- 60	7	88.6	94.6	95.1	90.1	71.7	57.0	64.8	69.8	69.3	67.2	50.6	29.8	13.9	8.4	5.8	4.6	3.9	3.6	3.5
60- 75	15	49.0	59.7	66.4	61.1	47.5	44.4	46.8	51.3	49.7	50.0	39.0	30.8	12.2	8.0	5.7	4.6	3.9	3.7	3.5
75- 100	25	32.5	36.5	38.2	35.2	30.9	29.3	29.3	33.3	31.7	32.1	28.4	20.1	13.5	7.0	5.7	4.5	3.9	3.6	3.5
100- 125	25	18.7	20.3	21.8	21.2	20.1	18.8	18.5	21.1	21.7	20.0	18.0	15.2	12.6	6.7	5.4	3.9	3.6	3.5	3.3
125- 150	25	12.8	13.1	14.2	14.3	13.4	12.3	12.3	14.1	16.7	15.8	14.6	13.6	8.1	6.4	5.0	3.8	2.8	2.8	2.8
150- 175	25	9.5	9.6	10.1	10.5	9.6	9.1	9.2	10.1	12.6	11.6	10.8	8.9	6.7	6.2	4.8	2.2	1.2	1.5	1.6
175- 200	25	6.9	6.8	7.7	7.9	6.7	6.5	6.7	7.4	9.8	8.9	8.3	6.8	6.6	5.6	3.8	2.3	1.3	0.8	0.8
200- 225	25	5.2	5.1	6.0	6.3	5.2	5.0	5.2	5.6	7.4	7.0	6.8	6.7	5.8	4.8	3.8	1.9	1.4	0.9	0.8

Table 5, (continuation)

Equivalent dose rate from JDisk and VA beam pipe for T= 10 y, t=15d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									372.7	149.4	60.8	24.1	10.9	5.0	3.1	2.5	2.1	2.2	2.1
5- 15	10						908.5	782.7	542.1	280.6	136.2	55.3	22.4	10.2	4.8	3.1	2.5	2.1	2.2	2.1
15- 30	15						376.5	319.2	258.9	181.6	112.0	51.4	22.3	10.3	4.9	3.1	2.4	2.0	2.2	2.1
30- 43	13						106.5	112.4	115.9	102.3	78.9	44.4	20.0	10.2	5.1	3.3	2.6	2.2	2.2	2.1
43- 53	10						106.9	82.6	69.1	63.2	54.3	37.5	18.1	9.5	5.1	3.4	2.8	2.4	2.2	2.1
53	0	117.7	114.4	113.3	111.5	98.7	62.9	57.5	54.2	51.2	46.9	34.0	18.0	9.0	5.1	3.5	2.8	2.4	2.2	2.1
53- 60	7	71.1	76.1	76.5	72.6	57.4	42.9	46.1	47.6	45.1	42.6	31.5	18.3	8.6	5.1	3.5	2.8	2.4	2.2	2.1
60- 75	15	39.5	47.8	53.4	49.1	37.4	33.3	34.3	35.8	33.3	32.5	24.8	18.7	7.7	4.8	3.5	2.8	2.4	2.2	2.1
75- 100	25	25.5	28.9	30.5	28.0	23.6	22.0	22.0	23.8	22.0	21.6	18.5	12.9	8.5	4.4	3.5	2.8	2.4	2.2	2.1
100- 125	25	14.5	15.8	17.2	16.7	15.3	14.2	14.1	15.6	15.2	13.8	12.1	10.0	7.9	4.2	3.2	2.4	2.3	2.1	2.0
125- 150	25	9.9	10.3	11.2	11.1	10.1	9.5	9.6	10.6	11.7	10.9	9.8	8.9	5.3	4.0	3.2	2.4	1.7	1.8	1.8
150- 175	25	7.4	7.4	7.9	8.0	7.3	7.0	7.1	7.6	8.8	8.1	7.4	6.0	4.6	3.8	3.1	1.4	0.9	0.9	1.0
175- 200	25	5.3	5.3	6.0	6.0	5.1	5.1	5.2	5.8	6.9	6.3	5.8	4.7	4.3	3.6	2.5	1.5	0.9	0.7	0.6
200- 225	25	4.0	3.9	4.5	4.7	4.0	3.9	4.0	4.4	5.3	4.9	4.8	4.6	3.8	3.2	2.5	1.3	1.0	1.1	0.9

Table 5, (continuation)

Equivalent dose rate from JDisk and VA beam pipe for T= 10 y, t=100d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856	856-862	862-872	872-887	887-907	907-957	957-1007	1007-1107	1107-1207	1207-1257	1257-1307	1307-1332	1332-1347	1347-1357
		0	10	25	25	9	0	6	10	15	20	50	50	100	100	50	50	25	15	10
0- 5	5									101.0	44.3	19.9	7.8	3.9	1.9	1.2	1.0	0.8	0.8	0.7
5- 15	10						226.5	200.3	141.9	77.9	41.4	18.5	7.5	3.7	1.8	1.2	1.0	0.8	0.8	0.7
15- 30	15						105.2	90.5	75.4	54.9	35.6	17.1	7.8	3.5	1.7	1.1	1.0	0.8	0.8	0.7
30- 43	13						50.7	47.9	44.6	35.9	26.7	14.9	7.0	3.4	1.7	1.2	1.0	0.8	0.8	0.7
43- 53	10						71.7	47.5	32.8	25.1	19.7	12.8	6.2	3.2	1.7	1.1	1.0	0.8	0.8	0.7
53	0	83.9	82.6	81.8	79.8	69.5	41.7	33.1	26.7	21.3	17.6	11.8	6.2	3.1	1.6	1.1	1.0	0.8	0.8	0.7
53- 60	7	48.4	53.4	54.3	51.4	40.2	28.0	26.4	23.8	19.3	16.3	11.2	6.3	3.0	1.6	1.1	1.0	0.8	0.8	0.7
60- 75	15	26.8	33.2	37.3	34.4	25.5	21.5	20.6	18.9	15.6	13.4	9.5	6.5	2.9	1.6	1.1	1.0	0.8	0.8	0.7
75- 100	25	14.7	18.5	20.7	19.3	15.7	14.3	13.9	13.4	11.5	10.0	7.6	5.0	3.1	1.6	1.1	1.0	0.8	0.8	0.7
100- 125	25	8.8	9.9	11.2	11.0	9.6	9.2	9.2	9.0	8.1	7.1	5.8	4.3	2.8	1.6	1.1	0.8	0.8	0.8	0.7
125- 150	25	6.0	6.3	7.1	7.1	6.2	6.1	6.2	6.3	6.3	5.6	4.6	3.8	2.3	1.6	1.2	0.8	0.7	0.7	0.6
150- 175	25	4.5	4.5	4.9	4.9	4.5	4.4	4.5	4.6	4.6	4.2	3.7	2.7	2.1	1.5	1.1	0.6	0.4	0.4	0.4
175- 200	25	3.2	3.2	3.6	3.6	3.1	3.2	3.3	3.6	3.7	3.2	3.0	2.2	1.9	1.4	1.0	0.7	0.5	0.4	0.4
200- 225	25	2.4	2.3	2.8	2.8	2.4	2.4	2.5	2.8	2.9	2.5	2.4	2.2	1.5	1.3	1.0	0.7	0.5	0.5	0.4

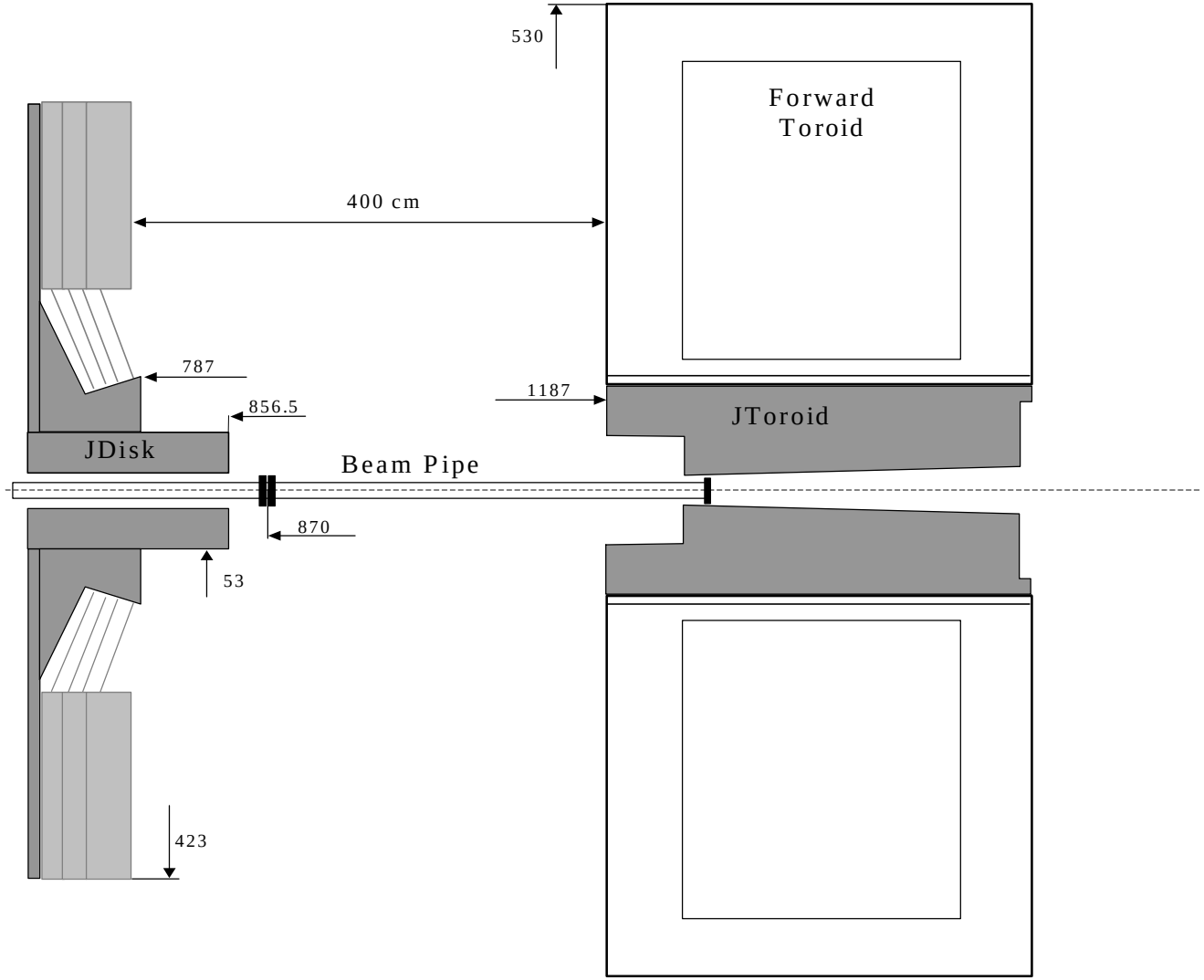

Fig.1. Access scenario to the area between JDisk and Forward Toroid with Beam Pipe in place.

Table 1

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 100d, t=1d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856.5	856-862	862-872	872-887	887-907	907-932	932-982	982-1032	1032-1082	1082-1132	1132-1157	1157-1177	1177-1187
		0	10	25	25	9	0	6	10	15	20	25	50	50	50	50	25	20	10
0- 5	5																		
5- 15	10						2804.3	2556.9	2326.3	1951.1	1670.7	1512.3	1413.5	1252.4	686.9	493.1	489.0	521.4	552.5
15- 30	15						1216.9	1098.7	1013.6	897.1	780.4	684.8	605.9	513.8	323.1	250.4	262.2	296.0	339.6
30- 43	13						470.2	463.2	479.5	481.1	458.5	421.2	365.2	303.1	211.9	178.0	195.7	234.5	273.9
43- 53	10						252.4	262.1	284.7	307.0	313.9	306.4	274.0	221.3	165.6	145.8	168.6	199.5	232.9
53	0	197.9	177.0	174.5	190.0	197.5	177.1	199.7	230.3	255.5	269.0	263.1	244.8	194.7	149.1	134.6	158.3	183.4	214.1
53- 60	7	176.8	147.2	138.5	148.0	151.5	152.0	175.8	205.6	229.9	246.9	241.5	231.0	183.7	141.6	130.1	152.3	172.0	182.8
60- 75	15	117.9	110.4	111.4	115.5	118.2	124.1	133.6	154.1	169.4	186.1	189.3	181.9	154.5	117.6	117.3	126.0	115.1	99.8
75- 100	25	68.3	70.2	75.8	80.9	86.6	88.7	90.7	104.3	110.7	122.2	128.8	124.1	116.9	95.5	90.7	71.8	61.0	53.6
100- 125	25	42.9	45.5	51.3	57.3	62.4	61.9	62.1	70.1	76.6	79.6	86.7	87.7	75.9	75.3	55.1	45.7	39.0	33.8
125- 150	25	33.6	34.7	38.5	43.2	46.1	45.4	45.5	50.3	57.6	55.7	62.9	63.1	60.6	46.3	41.6	33.3	29.9	26.0
150- 175	25	27.4	28.0	30.4	34.1	35.4	35.0	35.3	37.9	44.6	42.9	45.9	47.4	48.5	36.2	31.1	26.5	24.5	21.6
175- 200	25	22.4	22.8	25.2	27.8	28.1	27.9	28.2	29.9	35.2	35.2	34.3	37.8	35.7	29.9	23.8	21.0	20.1	18.2
200- 225	25	19.0	19.3	21.2	23.2	22.9	22.9	23.0	23.9	27.4	28.7	26.0	31.2	27.5	23.7	20.0	17.3	16.0	14.7

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 100d, t=5 d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856.5	856-862	862-872	872-887	887-907	907-932	932-982	982-1032	1032-1082	1082-1132	1132-1157	1157-1177	1177-1187
		0	10	25	25	9	0	6	10	15	20	25	50	50	50	50	25	20	10
0- 5	5																		
5- 15	10						1557.0	1426.5	1380.5	1250.0	1125.6	1049.0	998.9	890.8	484.2	336.9	322.6	334.2	344.6
15- 30	15						656.7	600.0	574.7	539.8	495.1	455.3	416.7	358.0	223.1	164.0	161.5	174.6	193.6
30- 43	13						217.1	236.9	264.9	283.2	284.5	271.2	244.9	206.7	143.6	113.0	115.7	132.6	148.4
43- 53	10						157.7	155.7	165.6	183.4	192.6	194.3	180.2	148.5	110.9	91.0	98.4	110.3	122.3
53	0	102.5	101.5	107.0	121.4	129.2	116.0	123.6	137.3	152.8	164.9	166.3	159.3	129.6	99.2	83.5	92.0	101.1	111.1
53- 60	7	74.1	76.3	82.5	94.7	100.1	99.7	110.2	124.4	138.6	151.9	152.9	149.8	121.9	93.7	80.6	88.6	94.7	93.7
60- 75	15	51.3	57.1	65.2	73.6	77.2	80.9	85.0	95.6	104.1	115.2	119.0	117.0	100.7	76.7	72.4	73.7	63.0	50.6
75- 100	25	42.5	43.3	46.6	51.6	55.9	57.4	58.3	65.3	69.5	76.1	80.7	78.8	74.4	61.2	56.0	42.4	35.2	31.1
100- 125	25	28.9	30.1	33.2	37.1	40.2	40.2	40.5	44.5	48.2	50.1	54.2	55.3	48.0	47.5	34.0	28.0	24.1	22.0
125- 150	25	22.8	23.3	25.4	28.3	30.0	29.6	29.8	32.3	36.4	35.6	39.2	39.5	37.8	29.5	25.6	20.8	18.8	17.2
150- 175	25	18.5	18.8	20.2	22.4	23.4	23.1	23.3	24.6	27.9	27.3	28.9	29.7	30.0	23.3	19.6	16.7	15.5	14.1
175- 200	25	15.0	15.3	16.6	18.1	18.3	18.3	18.6	19.5	22.1	22.1	21.8	23.9	22.3	18.9	15.7	13.7	12.8	11.9
200- 225	25	12.5	12.7	13.9	15.2	15.0	15.0	15.2	15.6	17.4	18.2	17.2	19.6	17.6	14.9	12.9	11.6	10.8	10.1

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 100d, t= 15 d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856.5	856-862	862-872	872-887	887-907	907-932	932-982	982-1032	1032-1082	1082-1132	1132-1157	1157-1177	1177-1187
		0	10	25	25	9	0	6	10	15	20	25	50	50	50	50	25	20	10
0- 5	5																		
5- 15	10						807.3	742.0	748.9	714.9	663.6	625.6	599.0	534.9	293.1	204.9	198.0	207.0	215.9
15- 30	15						364.3	331.1	319.1	305.7	287.0	267.8	247.9	214.1	135.9	101.3	101.7	111.5	125.4
30- 43	13						131.0	138.4	152.8	162.9	164.5	158.5	145.2	123.3	88.2	70.7	74.1	86.4	97.9
43- 53	10						94.2	91.2	96.6	106.3	112.2	113.8	106.3	88.7	68.4	57.3	63.4	72.8	81.6
53	0	65.2	63.6	66.4	75.0	79.2	69.7	72.7	80.6	89.1	96.2	97.5	93.6	77.5	61.2	52.8	59.5	66.8	74.0
53- 60	7	48.5	48.6	51.7	58.8	61.4	59.6	65.0	73.0	81.2	88.5	89.7	87.9	72.8	58.0	51.0	57.5	62.7	62.0
60- 75	15	33.1	35.9	41.0	45.4	47.0	48.3	50.7	56.4	61.3	67.5	70.1	68.9	59.7	47.6	46.1	47.9	41.0	32.9
75- 100	25	27.5	27.5	29.2	31.9	34.0	34.7	35.2	38.9	41.2	45.1	47.7	46.8	43.9	38.3	35.7	27.0	22.3	19.3
100- 125	25	18.2	19.0	20.8	22.8	24.5	24.6	24.8	27.0	28.7	29.9	32.4	32.8	28.9	30.1	21.3	17.4	15.1	13.5
125- 150	25	14.2	14.6	15.8	17.4	18.2	18.2	18.4	19.7	21.6	21.5	23.4	23.5	22.5	18.4	16.1	13.0	11.7	10.6
150- 175	25	11.6	11.8	12.5	13.8	14.2	14.3	14.3	15.1	16.7	16.4	17.5	17.8	17.9	14.6	12.3	10.5	9.6	8.7
175- 200	25	9.4	9.6	10.4	11.0	11.1	11.3	11.4	11.9	13.5	13.5	13.3	14.3	13.4	11.9	9.8	8.6	8.0	7.4
200- 225	25	7.9	7.9	8.6	9.2	9.2	9.2	9.3	9.6	10.5	10.9	10.4	11.7	10.6	9.4	8.1	7.2	6.7	6.3

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 100d, t= 100 d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856.5	856-862	862-872	872-887	887-907	907-932	932-982	982-1032	1032-1082	1082-1132	1132-1157	1157-1177	1177-1187
		0	10	25	25	9	0	6	10	15	20	25	50	50	50	50	25	20	10
0- 5	5																		
5- 15	10						159.7	152.3	177.2	192.2	189.7	183.2	177.3	158.7	87.9	62.5	61.6	65.6	69.8
15- 30	15						83.8	76.9	78.0	79.9	79.3	76.6	72.7	63.3	41.5	32.0	33.2	37.5	43.2
30- 43	13						43.7	41.8	43.0	44.4	45.3	44.7	42.1	36.3	27.3	22.8	24.9	30.1	34.9
43- 53	10						33.7	29.7	29.1	30.3	31.5	32.2	30.4	26.2	21.5	18.7	21.7	25.6	29.7
53	0	27.8	26.5	27.2	29.1	29.6	23.9	23.2	24.3	25.8	27.2	27.8	26.9	22.8	19.4	17.2	20.5	23.5	27.3
53- 60	7	20.6	20.0	20.6	22.2	21.8	20.0	20.8	22.2	23.6	25.2	25.7	25.3	21.6	18.3	16.8	19.7	22.0	23.0
60- 75	15	13.6	14.5	15.9	16.8	16.4	16.0	16.4	17.4	18.3	19.6	20.2	19.9	17.5	15.2	15.3	16.4	14.4	11.9
75- 100	25	10.1	10.2	10.7	11.4	11.5	11.5	11.6	12.4	12.7	13.4	14.1	13.8	12.8	12.5	11.9	9.1	7.5	6.6
100- 125	25	6.2	6.6	7.3	8.0	8.2	8.2	8.2	8.8	9.0	9.3	9.8	9.7	8.7	9.9	7.2	5.8	5.0	4.3
125- 150	25	4.8	4.9	5.4	6.0	6.1	6.2	6.2	6.5	6.8	6.8	7.0	7.1	6.8	6.1	5.3	4.3	3.7	3.3
150- 175	25	3.9	4.0	4.3	4.5	4.7	4.8	4.8	4.9	5.2	5.2	5.4	5.5	5.3	4.9	4.0	3.4	3.2	2.8
175- 200	25	3.1	3.1	3.4	3.7	3.7	3.7	3.8	4.0	4.2	4.2	4.1	4.4	4.0	3.9	3.3	2.7	2.6	2.4
200- 225	25	2.6	2.7	3.0	3.0	3.1	3.1	3.2	3.2	3.3	3.4	3.2	3.6	3.4	3.1	2.6	2.4	2.3	2.1

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 10 y, t= 1 d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856.5	856-862	862-872	872-887	887-907	907-932	932-982	982-1032	1032-1082	1082-1132	1132-1157	1157-1177	1177-1187
		0	10	25	25	9	0	6	10	15	20	25	50	50	50	50	25	20	10
0- 5	5																		
5- 15	10						3140.3	2864.3	2583.8	2159.0	1845.8	1663.7	1552.6	1372.1	752.8	541.3	537.1	573.0	609.6
15- 30	15						1357.4	1221.1	1129.7	1000.9	866.8	758.0	667.6	564.5	354.7	275.4	289.1	326.8	375.4
30- 43	13						533.1	523.5	540.6	540.2	514.1	467.0	403.7	334.0	233.1	196.2	215.4	259.4	303.4
43- 53	10						326.4	316.9	327.1	347.2	351.0	340.9	303.2	244.2	182.6	160.6	186.0	220.6	258.3
53	0	273.8	251.9	247.3	266.4	265.1	223.5	240.0	265.7	288.5	301.5	293.3	271.2	214.9	164.6	148.5	174.7	202.9	235.1
53- 60	7	220.0	197.3	189.7	198.9	194.9	186.0	209.4	238.1	260.7	277.0	269.3	256.1	202.6	156.1	143.4	168.3	190.7	201.4
60- 75	15	142.4	141.2	147.3	150.9	147.2	149.9	159.4	179.7	193.3	210.0	211.6	202.1	170.8	130.0	129.8	139.9	127.2	110.1
75- 100	25	81.9	88.1	96.5	101.7	105.3	106.6	108.5	122.1	127.9	139.1	144.9	138.4	129.8	105.8	100.9	79.7	67.5	59.3
100- 125	25	52.1	56.0	63.3	69.8	74.5	73.7	74.0	82.3	88.5	90.9	98.2	98.5	84.6	83.5	61.2	50.7	43.5	37.7
125- 150	25	40.3	41.8	46.6	51.9	54.4	53.6	53.9	58.9	66.4	64.0	71.2	71.0	68.0	51.6	46.3	36.9	33.3	29.2
150- 175	25	32.6	33.1	36.4	40.3	41.5	41.1	41.5	44.3	51.2	49.2	52.5	53.6	54.3	40.7	34.7	29.5	27.3	24.2
175- 200	25	26.5	26.9	29.6	32.6	32.6	32.6	33.1	34.9	40.5	40.2	39.2	42.9	40.0	33.5	27.0	23.7	22.5	20.5
200- 225	25	22.1	22.4	25.0	27.3	26.5	26.6	26.8	27.8	31.9	32.6	29.8	35.4	31.0	26.4	22.6	19.7	18.4	16.8

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 10 y, t= 5 d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856.5	856-862	862-872	872-887	887-907	907-932	932-982	982-1032	1032-1082	1082-1132	1132-1157	1157-1177	1177-1187
		0	10	25	25	9	0	6	10	15	20	25	50	50	50	50	25	20	10
0- 5	5																		
5- 15	10						1871.4	1704.8	1632.4	1451.1	1292.9	1197.0	1135.1	1009.2	550.2	385.2	370.9	386.0	399.8
15- 30	15						792.1	722.9	690.6	640.0	579.4	526.7	477.0	407.8	254.6	189.1	188.2	204.6	228.3
30- 43	13						271.7	294.6	326.6	340.3	336.1	316.7	282.4	236.9	164.5	131.0	135.5	156.7	176.7
43- 53	10						231.2	209.1	208.1	221.9	229.2	228.0	208.8	170.8	127.3	105.7	115.8	131.0	146.5
53	0	176.7	177.1	184.0	197.4	196.7	161.8	162.9	172.3	185.8	196.6	195.6	185.1	149.5	114.2	97.2	108.1	120.1	133.7
53- 60	7	116.9	124.7	133.2	145.0	142.2	133.0	142.8	156.3	168.7	181.1	179.9	174.4	140.7	108.1	93.8	104.2	112.7	112.8
60- 75	15	75.5	87.6	100.9	108.4	105.8	106.5	110.2	120.5	127.7	138.2	140.9	137.0	116.8	88.8	84.4	86.9	75.0	60.7
75- 100	25	55.6	60.7	67.0	72.1	74.5	74.9	75.7	82.9	86.3	92.6	96.5	93.0	86.9	71.1	65.6	50.1	41.8	36.8
100- 125	25	38.2	40.6	45.1	49.5	52.2	52.0	52.1	56.5	59.8	61.4	65.6	65.9	56.5	55.6	40.0	33.0	28.6	25.8
125- 150	25	29.4	30.1	33.3	36.7	38.1	37.8	38.0	40.9	45.0	43.9	47.5	47.2	45.1	34.6	30.2	24.5	22.3	20.3
150- 175	25	23.6	24.0	26.0	28.6	29.1	29.2	29.5	31.1	34.6	33.5	35.4	35.6	35.7	27.8	23.2	19.6	18.3	16.7
175- 200	25	19.0	19.2	21.2	22.8	22.7	22.9	23.2	24.4	27.4	27.1	26.6	28.9	26.4	22.4	18.9	16.4	15.2	14.0
200- 225	25	15.7	15.8	17.5	19.0	18.6	18.6	18.8	19.5	21.8	22.2	20.6	23.7	21.0	17.6	15.4	14.1	13.1	12.1

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 10 y, t= 15 d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856.5	856-862	862-872	872-887	887-907	907-932	932-982	982-1032	1032-1082	1082-1132	1132-1157	1157-1177	1177-1187
		0	10	25	25	9	0	6	10	15	20	25	50	50	50	50	25	20	10
0- 5	5																		
5- 15	10						1091.9	995.4	977.4	908.1	827.6	772.7	735.1	654.1	358.9	252.8	245.9	257.9	270.3
15- 30	15						493.1	444.4	424.7	399.9	366.7	337.0	307.4	263.7	167.4	126.2	127.7	141.2	159.3
30- 43	13						183.5	192.7	210.5	217.4	214.1	202.2	181.7	152.8	109.1	88.4	93.7	110.1	125.8
43- 53	10						165.6	143.2	137.6	143.4	147.2	146.1	134.0	110.7	84.8	71.8	80.6	92.6	105.1
53	0	136.6	134.4	138.8	148.7	147.0	115.2	111.3	114.2	120.5	126.6	125.7	118.8	96.9	76.3	66.2	75.7	85.0	95.8
53- 60	7	89.6	95.7	101.4	108.3	103.3	92.4	96.9	104.0	109.8	116.7	116.0	111.8	91.2	72.2	64.1	73.0	79.9	80.8
60- 75	15	56.7	66.1	75.9	79.9	75.4	73.8	75.6	80.9	84.0	89.9	91.1	88.3	75.4	59.6	58.0	60.8	52.8	42.8
75- 100	25	40.6	44.7	49.3	52.2	51.9	51.7	52.2	56.2	57.5	61.0	62.9	60.5	56.0	48.3	45.3	34.4	28.8	25.0
100- 125	25	27.3	29.0	32.5	35.2	36.1	36.0	36.1	38.7	40.1	40.8	43.4	43.0	37.2	38.0	27.3	22.5	19.4	17.4
125- 150	25	20.7	21.4	23.7	25.8	26.2	26.0	26.3	28.1	30.3	29.4	31.5	31.1	29.6	23.4	20.6	16.6	15.1	13.8
150- 175	25	16.7	16.9	18.3	19.9	20.1	20.1	20.3	21.3	23.2	22.6	23.8	23.6	23.4	19.1	15.8	13.4	12.4	11.3
175- 200	25	13.2	13.4	14.8	15.8	15.6	15.8	16.0	16.9	18.5	18.3	18.0	19.1	17.4	15.4	12.9	11.1	10.4	9.6
200- 225	25	10.9	11.0	12.1	13.0	12.8	12.8	13.0	13.6	14.7	14.7	13.9	15.7	14.0	12.0	10.6	9.6	9.0	8.3

Table 1, (continuation)

Equivalent dose rate from JDisk, Toroid, VA and VT beam pipe for T= 10 y, t= 100 d

R/Z, cm	dR\dZ	787	787-797	797-822	822-847	847-856	856.5	856-862	862-872	872-887	887-907	907-932	932-982	982-1032	1032-1082	1082-1132	1132-1157	1157-1177	1177-1187
		0	10	25	25	9	0	6	10	15	20	25	50	50	50	50	25	20	10
0- 5	5																		
5- 15	10						294.6	279.2	303.0	310.2	297.6	283.3	271.1	241.3	134.4	96.4	95.8	102.3	108.7
15- 30	15						148.4	137.0	136.9	135.9	130.1	122.3	113.0	97.3	63.8	49.8	52.4	59.2	68.2
30- 43	13						79.3	77.8	79.7	78.7	76.9	73.2	66.6	56.6	42.2	35.6	39.3	47.5	56.0
43- 53	10						93.6	70.0	58.3	55.0	54.2	53.1	48.9	41.0	33.3	29.2	34.2	40.6	47.3
53	0	91.0	90.1	91.3	93.6	87.5	61.1	53.1	49.0	47.1	47.2	46.0	43.4	36.0	30.2	27.1	32.2	37.1	43.5
53- 60	7	55.4	60.8	63.6	64.7	57.3	46.4	45.3	44.9	43.4	43.9	42.9	40.9	34.0	28.7	26.3	31.1	35.0	36.4
60- 75	15	33.3	40.1	45.8	45.9	39.7	36.6	36.0	35.8	34.6	34.8	34.3	32.8	28.1	24.0	24.0	25.8	23.2	19.6
75- 100	25	20.5	24.5	27.8	28.3	26.3	25.4	25.2	25.6	24.8	24.8	24.6	23.2	20.9	19.9	18.9	14.6	12.4	10.7
100- 125	25	13.6	14.8	17.0	18.0	17.5	17.4	17.5	17.8	17.5	17.2	17.6	16.8	14.6	15.8	11.5	9.7	8.3	7.2
125- 150	25	10.1	10.5	11.9	12.6	12.3	12.4	12.5	12.9	13.3	12.8	12.9	12.5	11.8	9.8	8.7	6.9	6.4	5.7
150- 175	25	8.0	8.1	8.8	9.4	9.4	9.4	9.5	9.8	10.1	9.9	10.0	9.6	9.2	8.3	6.7	5.6	5.2	4.7
175- 200	25	6.2	6.2	7.0	7.4	7.1	7.3	7.4	7.8	8.2	7.8	7.8	7.8	7.0	6.6	5.6	4.8	4.4	4.0
200- 225	25	5.1	5.1	5.7	6.0	5.7	5.8	5.9	6.4	6.6	6.2	6.0	6.6	5.9	5.1	4.4	4.2	4.0	3.5