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LAMPIRAN

Lampiran 1. Data Pengukuran Akurasi Tegangan dan Reproduksibilitas

Mode : Mo/Mo

mAs : 50 mAs

No.	kVp set	kVp ukur	Kerma (Ki) (mGy)
1.	25	24,4	5,215
		24,4	5,218
		24,5	5,218
		24,4	5,220
		24,4	5,219
2.	27	26,2	6,578
		26,2	6,578
		26,2	6,581
		26,3	6,585
		26,3	6,579
3.	29	28,0	8,077
		28,1	8,081
		28,0	8,081
		28,1	8,080
		28,0	8,080
4.	31	29,9	9,707
		30,0	9,707
		30,0	9,701
		29,9	9,704
		29,9	9,704
5.	33	31,6	11,350
		31,7	11,330
		31,7	11,330
		31,6	11,330
		31,7	11,340

Mode : Mo/Rh

mAs : 50 mAs

No.	kVp set	kVp ukur	Kerma (Ki) (mGy)
1.	25	26,1	4,137
		26,0	4,135
		26,0	4,134
		26,1	4,137
		26,0	4,138
2.	27	28,0	5,319
		28,0	5,319
		28,1	5,322
		28,1	5,322
		28,0	5,322
3.	29	29,7	6,598
		29,7	6,600
		29,8	6,601
		29,8	6,600
		29,8	6,600
4.	31	31,7	7,958
		31,7	7,962
		31,6	7,963
		31,6	7,970
		31,6	7,966
5.	33	33,4	9,360
		33,5	9,338
		33,4	9,349
		33,4	9,352
		33,5	9,349

Lampiran 2. Data Pengukuran untuk Uji Linearitas Keluaran Radiasi

kVp : 29 kV

No.	mAs	Keluaran radiasi (mGy)	
		Mo/Mo	Mo/Rh
1.	10	1,534	1,254
		1,534	1,25
		1,533	1,257
		1,534	1,259
		1,532	1,249
2.	50	8,017	6,525
		8,014	6,528
		8,020	6,522
		8,017	6,523
		8,013	6,522
3.	100	16,130	13,100
		16,130	13,110
		16,140	13,110
		16,140	13,110
		16,140	13,110
4.	160	25,950	21,020
		25,990	21,030
		25,950	21,030
		25,950	21,040
		25,950	21,030
5.	200	32,460	26,330
		32,470	26,360
		32,470	26,370
		32,470	26,350
		32,470	26,370

Lampiran 3. Data Pengukuran Keluaran Radiasi Untuk Perhitungan MGD

Mode : Mo/Mo

mAs : 50 mAs

No.	kVp set	Kerma Udara (Ki) (mGy)	HVL (mmAl)
1.	25	4,626	0,35
2.	27	5,922	0,37
3.	29	7,341	0,40
4.	31	8,882	0,40
5.	33	10,46	0,40

Mode : Mo/Rh

No.	kVp set	Kerma Udara (Ki) (mGy)	HVL (mmAl)
1.	25	0,30	3,777
2.	27	0,32	4,929
3.	29	0,35	6,17
4.	31	0,35	7,508
5.	33	0,37	8,869

Lampiran 4. Tabel Nilai Konstanta yang digunakan dalam perhitungan MGD (TRS No.457)

HVL (mm Al)	$C_{DG50,Ki}$
0,25	0,149
0,30	0,177
0,32	0,185
0,35	0,202
0,37	0,208
0,40	0,223
0,45	0,248

Target/filter Combination	s factor
Mo/Mo	1,000
Mo/Rh	1,017
Rh/Rh	1,061
Rh/Al	1,044
W/Rh	1,042

0,50	0,276
0,55	0,304
0,60	0,326
0,65	0,349

LAMPIRAN 5. PERHITUNGAN

5.1 Perhitungan Persentase Error

5.1.1 Mo/Mo

a. Tegangan 25 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{25 - 24,4}{25} \times 100\%$$

$$= 2,4\%$$

b. Tegangan 27 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{27 - 26,2}{27} \times 100\%$$

$$= 3,0\%$$

c. Tegangan 29 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{29 - 28,0}{29} \times 100\%$$

$$= 3,4\%$$

d. Tegangan 31 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{31 - 29,9}{31} \times 100\%$$

$$= 3,5\%$$

5.1.2 Mo/Rh

e. Tegangan 33 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{33 - 31,7}{33} \times 100\% = 3,9\%$$

a. Tegangan 25 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{25 - 26,1}{25} \times 100\%$$

$$= 4,4\%$$

b. Tegangan 27 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{27 - 28,0}{28} \times 100\%$$

$$= 3,7\%$$

a. Tegangan 29 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{29 - 29,8}{29} \times 100\%$$

$$= 2,8\%$$

a. Tegangan 31 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{31 - 31{,}6}{31} \times 100\%$$

$$= 1{,}9\%$$

a. Tegangan 33 kV

$$error = \frac{kV_{p,set} - kV_{p,ukur}}{kV_{p,set}} \times 100\%$$

$$= \frac{33 - 33{,}4}{33} \times 100\% = 1{,}2\%$$

5.2 Reproduksibilitas (Perhitungan Koefisien Variasi)

5.2.1 Reproduksibilitas Tegangan (Mo/Mo)

a. **Tegangan 25 kV**

$$\bar{X} = \frac{\sum X_i}{n} = \frac{24{,}4 + 24{,}4 + 24{,}5 + 24{,}4 + 24{,}4}{5} = 24{,}42$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(24{,}4 - 24{,}42)^2 + (24{,}4 - 24{,}42)^2 + (24{,}5 - 24{,}42)^2 + (24{,}4 - 24{,}42)^2 + (24{,}4 - 24{,}42)^2}{5-1}}$$

$$= \sqrt{\frac{0{,}008}{4}}$$

$$= 0{,}0447$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0447}{24{,}42} = \mathbf{0{,}00183}$$

a. **Tegangan 27 kV**

$$\bar{X} = \frac{\sum X_i}{n} = \frac{26{,}2 + 26{,}2 + 26{,}2 + 26{,}3 + 26{,}3}{5} = 26{,}24$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(26{,}2 - 26{,}24)^2 + (26{,}2 - 26{,}24)^2 + (26{,}2 - 26{,}24)^2 + (26{,}3 - 26{,}24)^2 + (26{,}3 - 26{,}24)^2}{5-1}}$$

$$= 0{,}0548$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0548}{26{,}24} = \mathbf{0{,}00209}$$

a. **Tegangan 29 kV**

$$\bar{X} = \frac{\sum X_i}{n} = \frac{28{,}0 + 28{,}1 + 28{,}0 + 28{,}0 + 28{,}1}{5} = 28{,}04$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(28{,}0 - 28{,}04)^2 + (28{,}1 - 28{,}04)^2 + (28{,}0 - 28{,}04)^2 + (28{,}0 - 28{,}04)^2 + (28{,}1 - 28{,}04)^2}{5-1}}$$

$$= 0{,}0548$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0548}{28{,}04} = \mathbf{0,00195}$$

a. **Tegangan 31 kV**

$$\bar{X} = \frac{\sum X_i}{n} = \frac{29{,}9 + 30{,}0 + 29{,}9 + 29{,}9 + 30{,}0}{5} = 29{,}94$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(29{,}9 - 29{,}94)^2 + (30{,}0 - 29{,}94)^2 + (29{,}9 - 29{,}94)^2 + (29{,}9 - 29{,}94)^2 + (30{,}0 - 29{,}94)^2}{5-1}}$$

$$= 0{,}0548$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0548}{29{,}94} = \mathbf{0,00183}$$

a. **Tegangan 33 kV**

$$\bar{X} = \frac{\sum X_i}{n} = \frac{31{,}7 + 31{,}7 + 31{,}7 + 31{,}6 + 31{,}6}{5} = 31{,}66$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(31{,}7 - 31{,}66)^2 + (31{,}7 - 31{,}66)^2 + (31{,}7 - 31{,}66)^2 + (31{,}6 - 31{,}66)^2 + (31{,}6 - 31{,}66)^2}{5-1}}$$

$$= 0{,}0548$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0548}{31{,}66} = \mathbf{0{,}00173}$$

5.2.2 Reproduksibilitas tegangan (Mo/Rh)

Tegangan 25 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{26{,}1 + 26{,}0 + 26{,}0 + 26{,}1 + 26{,}0}{5} = 26{,}04$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(26{,}1 - 26{,}04)^2 + (26{,}1 - 26{,}04)^2 + (26{,}1 - 26{,}04)^2 + (26{,}1 - 26{,}04)^2 + (26{,}1 - 26{,}04)^2}{5-1}}$$

$$= 0{,}0548$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0548}{26{,}04} = \mathbf{0{,}00210}$$

Tegangan 27 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{28{,}0 + 28{,}0 + 28{,}1 + 28{,}1 + 28{,}0}{5} = 28{,}05$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(28{,}0 - 28{,}05)^2 + (28{,}0 - 28{,}05)^2 + (28{,}1 - 28{,}05)^2 + (28{,}1 - 28{,}05)^2 + (28{,}0 - 28{,}05)^2}{5-1}}$$

$$= 0{,}0577$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0577}{28{,}05} = \mathbf{0{,}00206}$$

Tegangan 29 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{29{,}8 + 29{,}8 + 29{,}8 + 29{,}7 + 29{,}7}{5} = 29{,}76$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(29{,}8 - 29{,}76)^2 + (29{,}8 - 29{,}76)^2 + (29{,}8 - 29{,}76)^2 + (29{,}7 - 29{,}76)^2 + (29{,}7 - 29{,}76)^2}{5 - 1}}$$

$$= 0{,}0548$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0548}{29{,}76} = \mathbf{0{,}00184}$$

Tegangan 31 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{31{,}7 + 31{,}7 + 31{,}6 + 31{,}6 + 31{,}6}{5} = 31{,}64$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n - 1}}$$

$$= \sqrt{\frac{(31{,}7 - 31{,}64)^2 + (31{,}7 - 31{,}64)^2 + (31{,}7 - 31{,}64)^2 + (31{,}7 - 31{,}64)^2 + (31{,}7 - 31{,}64)^2}{5 - 1}}$$

$$= 0{,}0548$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0548}{31{,}64} = \mathbf{0{,}00173}$$

Tegangan 33 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{33{,}4 + 33{,}5 + 33{,}4 + 33{,}4 + 33{,}5}{5} = 33{,}44$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n - 1}}$$

$$= \sqrt{\frac{(33{,}4 - 33{,}44)^2 + (33{,}5 - 33{,}44)^2 + (33{,}4 - 33{,}44)^2 + (33{,}4 - 33{,}44)^2 + (33{,}5 - 33{,}44)^2}{5 - 1}}$$

$$= 0{,}0548$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0548}{31{,}66} = \mathbf{0{,}00164}$$

5.2.3 Reproduksibilitas Keluaran Radiasi (Mo/Mo)

Tegangan 25 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{5{,}215 + 5{,}218 + 5{,}218 + 5{,}220 + 5{,}219}{5} = 5{,}218$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(5{,}215 - 5{,}218)^2 + (5{,}218 - 5{,}218)^2 + (5{,}218 - 5{,}218)^2 + (5{,}220 - 5{,}218)^2 + (5{,}219 - 5{,}218)^2}{5-1}}$$

$$= 0{,}0019$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0019}{5{,}218} = \mathbf{0,00035}$$

Tegangan 27 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{6{,}578 + 6{,}578 + 6{,}581 + 6{,}585 + 6{,}579}{5} = 6{,}580$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(6{,}578 - 6{,}580)^2 + (6{,}578 - 6{,}580)^2 + (6{,}581 - 6{,}580)^2 + (6{,}585 - 6{,}580)^2 + (6{,}579 - 6{,}580)^2}{5-1}}$$

$$= 0{,}0029$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0029}{6{,}580} = \mathbf{0,00044}$$

Tegangan 29 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{8{,}077 + 8{,}081 + 8{,}081 + 8{,}080 + 8{,}080}{5} = 8{,}079$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(8{,}077 - 8{,}079)^2 + (8{,}081 - 8{,}079)^2 + (8{,}081 - 8{,}079)^2 + (8{,}080 - 8{,}079)^2 + (8{,}080 - 8{,}079)^2}{5-1}}$$

$$= 0{,}0016$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0016}{8{,}079} = \mathbf{0,00020}$$

Tegangan 31 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{9{,}707 + 9{,}707 + 9{,}701 + 9{,}704 + 9{,}704}{5} = 9{,}704$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(9{,}707 - 9{,}704)^2 + (9{,}707 - 9{,}704)^2 + (9{,}701 - 9{,}704)^2 + (9{,}704 - 9{,}704)^2 + (9{,}704 - 9{,}704)^2}{5-1}}$$

$$= 0{,}0025$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0025}{9{,}704} = \mathbf{0,00025}$$

Tegangan 33 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{11{,}35 + 11{,}33 + 11{,}33 + 11{,}33 + 11{,}34}{5} = 11{,}336$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(11{,}35 - 11{,}336)^2 + (11{,}33 - 11{,}336)^2 + (11{,}33 - 11{,}336)^2 + (11{,}33 - 11{,}336)^2 + (11{,}34 - 11{,}336)^2}{5-1}}$$

$$= 0{,}0089$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0089}{11{,}336} = \mathbf{0,00078}$$

5.2.4 Reproduksibilitas Keluaran Radiasi (Mo/Rh)

Tegangan 25 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{4{,}137 + 4{,}135 + 4{,}134 + 4{,}137 + 4{,}138}{5} = 4{,}136$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(4{,}137 - 4{,}136)^2 + (4{,}135 - 4{,}136)^2 + (4{,}134 - 4{,}136)^2 + (4{,}137 - 4{,}136)^2 + (4{,}138 - 4{,}136)^2}{5-1}}$$

$$= 0{,}0016$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0016}{4{,}136} = \mathbf{0,00039}$$

Tegangan 27 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{5{,}319 + 5{,}319 + 5{,}322 + 5{,}322 + 5{,}322}{5} = 5{,}321$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(5{,}319 - 5{,}321)^2 + (5{,}319 - 5{,}321)^2 + (5{,}322 - 5{,}321)^2 + (5{,}322 - 5{,}321)^2 + (5{,}322 - 5{,}321)^2}{5-1}}$$

$$= 0{,}0016$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0016}{5{,}321} = \mathbf{0{,}00031}$$

Tegangan 29 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{6{,}598 + 6{,}600 + 6{,}601 + 6{,}600 + 6{,}600}{5} = 6{,}599$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(6{,}598 - 6{,}599)^2 + (6{,}600 - 6{,}599)^2 + (6{,}601 - 6{,}599)^2 + (6{,}600 - 6{,}599)^2 + (6{,}600 - 6{,}599)^2}{5-1}}$$

$$= 0{,}0011$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0011}{6{,}599} = \mathbf{0{,}00016}$$

Tegangan 31 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{7{,}958 + 7{,}962 + 7{,}963 + 7{,}970 + 7{,}966}{5} = 7{,}964$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(7{,}958 - 7{,}964)^2 + (7{,}962 - 7{,}964)^2 + (7{,}963 - 7{,}964)^2 + (7{,}970 - 7{,}964)^2 + (7{,}966 - 7{,}964)^2}{5-1}}$$

$$= 0{,}0045$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0045}{7{,}964} = \mathbf{0{,}00056}$$

Tegangan 33 kV

$$\bar{X} = \frac{\sum X_i}{n} = \frac{9{,}360 + 9{,}338 + 9{,}349 + 9{,}352 + 9{,}349}{5} = 9{,}350$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

$$= \sqrt{\frac{(9{,}360 - 9{,}350)^2 + (9{,}338 - 9{,}350)^2 + (9{,}349 - 9{,}350)^2 + (9{,}352 - 9{,}350)^2 + (9{,}349 - 9{,}350)^2}{5-1}}$$

$$= 0{,}0079$$

$$CV = \frac{S}{\bar{X}} = \frac{0{,}0079}{9{,}350} = \mathbf{0{,}00084}$$

5.3 Perhitungan Koefisien Linearitas Keluaran Radiasi

a. Kombinasi Mo/Mo

$$X = \frac{Rerata\ Dosis\ (mGy)}{Arus\ Waktu\ (mAs)}$$

$$X_1 = \frac{1{,}533}{10} = 0{,}153$$

$$X_2 = \frac{8{,}016}{50} = 0{,}160$$

$$X_3 = \frac{16{,}136}{100} = 0{,}161$$

$$X_4 = \frac{25{,}958}{160} = 0{,}162$$

$$X_5 = \frac{32{,}468}{200} = 0{,}162$$

$$(\mathrm{CL}) = \frac{X_{max} - X_{min}}{X_{max} + X_{min}}$$

$$(\mathrm{CL}) = \frac{0{,}162 - 0{,}153}{0{,}162 + 0{,}153}$$

Koefisien Linearitas (CL) = $\mathbf{0{,}029}$

b. Kombinasi Mo/Rh

$$X = \frac{Rerata\ Dosis\ (mGy)}{Arus\ Waktu\ (mAs)}$$

$$X_1 = \frac{1{,}253}{10} = 0{,}125$$

$$X_2 = \frac{6{,}524}{50} = 0{,}130$$

$$X_3 = \frac{13{,}108}{100} = 0{,}131$$

$$X_4 = \frac{21{,}03}{160} = 0{,}131$$

$$X_5 = \frac{26{,}356}{200} = 0{,}132$$

$$(\mathrm{CL}) = \frac{X_{max} - X_{min}}{X_{max} + X_{min}}$$

$$(\mathrm{CL}) = \frac{0{,}132 - 0{,}125}{0{,}132 + 0{,}125}$$

Koefisien Linearitas (CL) = $\mathbf{0{,}025}$

5.4 Perhitungan MGD

5.4.1 Kombinasi Mo/Mo

a. Tegangan 25 kV

$MGD = K_i \cdot C_{DG50.Ki} \cdot s$

$= (4{,}626)(0{,}177)(1)$

$= 0{,}819\ mGy$

b. Tegangan 27 kV

$MGD = K_i \cdot C_{DG50.Ki} \cdot s$

$= (5{,}922)(0{,}185)(1)$

$= 1{,}096\ mGy$

c. Tegangan 29 kV

$MGD = K_i \cdot C_{DG50.Ki} \cdot s$

$= (7{,}341)(0{,}202)(1)$

$= 1{,}483\ mGy$

d. Tegangan 31 kV

$MGD = K_i \cdot C_{DG50.Ki} \cdot s$

$= (8{,}882)(0{,}202)(1)$

$= 1{,}794\ mGy$

e. Tegangan 33 kV

$MGD = K_i \cdot C_{DG50.Ki} \cdot s$

$= (10{,}460)(0{,}208)(1)$

$= 2{,}176\ mGy$

5.4.2 Kombinasi Mo/Rh

a. Tegangan 25 kV

$MGD = K_i \cdot C_{DG50.Ki} \cdot s$

$= (3{,}777)(0{,}202)(1{,}017)$

$= 0{,}776\ mGy$

b. Tegangan 25 kV

$MGD = K_i \cdot C_{DG50.Ki} \cdot s$

$= (4{,}929)(0{,}208)(1{,}017)$

$= 1{,}043\ mGy$

c. Tegangan 25 kV

$MGD = K_i \cdot C_{DG50.Ki} \cdot s$

$= (6{,}170)(0{,}223)(1{,}017)$

$= 1{,}399\ mGy$

d. Tegangan 25 kV

$MGD = K_i \cdot C_{DG50.Ki} \cdot s$

$= (7{,}508)(0{,}223)(1{,}017)$

$= 1{,}703\ mGy$

e. Tegangan 33 kV

$$MGD = K_i \cdot C_{DG50.Ki} \cdot s$$

$$= (8{,}869)(0{,}223)(1{,}017)$$

$$= 2{,}011\ mGy$$

Lampiran 6. Data Batas Lolos Uji Kesesuaian Perka Bapeten No.2 Tahun 2022

B. Generator dan Tabung Sinar-X		
1.	Akurasi tegangan	*error max* ≤ 5%
2.	Akurasi waktu penyinaran	*error max* ≤ 5%
3.	Linieritas keluaran radiasi	Koefisien linieritas (CL) ≤ 0,1
4.	Reproduksibilitas[c]	
	(a) keluaran radiasi (output)	Koefisien varian (CV) ≤ 0,05
	(b) tegangan puncak (kVp)	Koefisien varian (CV) ≤ 0,05
	(c) waktu penyinaran (ms)	Koefisien varian (CV) ≤ 0,05
5.	Kualitas Berkas Sinar-X (HVL)[a]	
	(a) Dengan pedal kompresi, pada kondisi maksimum klinis yang digunakan	kVp/100 + 0,03 ≤ HVL ≤ kVp/100 + c
	(b) Tanpa pedal kompresi, pada kondisi maksimum klinis yang digunakan	kVp/100 ≤ HVL ≤ kVp/100 + c

E. Perkiraan Dosis Permukaan Kulit (*Entrance Surcafe Air Kerma*)		
	Mean Glandular Dose (MGD)[d]	
	Ekivalen ketebalan 45 mm fantom PMMA	D_G ≤ 2,5 mGy
	atau	
	fantom ACR	D_G ≤ 3 mGy