

Chapter 7 Appendix 2b

CODE FOR SHIELDING PARAMETERS

The intention of this code (CD465) is to provide the nine parameters from shielding histories where the subject is inside a Japanese type house so that they can be used for the calculation of individual dose. Supplementary information is also coded for possible future use. There are approximately 19,000 cases for both cities.

C.D.#465, Shielding Parameters		Revised 1 Jun. '66 Revised 1 Oct. '65 1 Oct. '64	
<u>Summary of Code Items</u>			
<u>Item No.</u>	<u>Description of Items</u>	<u>No. of columns</u>	<u>Columns used</u>
Part I: Identification			
1.	Master file number	6	1- 6
2.	Sex and city of exposure	1	7
3.	Coordinates as to exact location ATB	8	8-15
Part II: Nine parameters and certainty of coding			
4.	F.S. (Front Shielding)	1	16
5.	F.S.S. (Front Shielding Size)	1	17
6.	U.S. (Unshielded)	3	18-20
7.	L.S. (Lateral Shielding)	1	21
8.	I.F.W. (Internal Frontal Walls)	1	22
9.	I.L.W. (Internal Lateral Walls)	1	23
10.	H.F. (Height above Floor)	2	24-25
11.	F.N. (Floor Number)	1	26
12.	S.P. (Slant Penetration)	4	27-30
13.	Certainty of coding nine parameters	9	31-39
Part III: Other Pertinent Data			
14.	Completeness of shielding drawings prior to coding	1	40
15.	Attenuation factor (T57D)	6	41-46
16.	Description of Japanese-type house	1	47
17.	Treatment of house	1	48
18.	Treatment of projection	2	49-50
19.	Elevation	1	51
20.	Grove	1	52
21.	Present coding disposition	1	53
22.	Sea level	2	54-55
23.	Class of estimating dose	1	56
24.	Method of estimating dose	1	57
25.	Reserve columns	17	58-74
26.	Card design number	3	75-77
27.	Reserve columns	3	78-80

CODE FOR SHIELDING PARAMETERS

Revised 1 Jun. '66
 Revised 1 Oct. '65
 1 Oct. '64

Code for Shielding Parameters

(C.D.#465)

Item No.	Description of field and positions	Columns
1.	Master file number	1- 6
2.	Sex and city of exposure	7
	1 Male, Hiroshima exposed	
	2 Female, Hiroshima exposed	
	3 Male, Nagasaki exposed	
	4 Female, Nagasaki exposed	
3.	Coordinates as to exact location ATB	8-15
	Abcissa	8-11
	Ordinate	12-15
	Note: Maps used to measure the coordinates are; Army Map Service U.S. Army Washington D.C. Hiroshima - 138449 9-46 1946 and Nagasaki - 138353 8-45 1945	
4.	F.S. (Front Shielding)	16
	0 When there is no shielding provided by a one storied house within 7 m or a two storied house within 6.0-12 m of the subject in the direction of the bomb.	
	1 When an adjoining house sharing a common wall (such as tenement house, hospital, school, etc.) within the above-mentioned distance limits provides shielding.	
	2 When an independent house (not sharing a common wall) where the distance is the same as or less than the height of the house which provides shielding ($D \leq H$)	
	5 When an independent house (not sharing a common wall) where the distance is the same as or less than twice the height or more than the height of the house which provides shielding. ($2H > D > H$) However this function will be interpreted as 0.5 by machine processing.	
	9 Unknown	
	b Not coded cases	
5.	F.S.S. (Front Shielding Size)	17
	0 No shielding	
	1 Shielded by single storied house	
	2 Shielded by two or three storied house	
	9 Unknown	
	b Not coded cases	
6.	U.S. (Unshielded)	18-20
	Code distance from front window to subject by 1.5 m zones. If zone is fractional use next integer. If F.S. $\neq 0$, code 100. If F.S. = 0 and no front window also code 100.	
	900 Unknown	
	bbb Not coded cases	

<u>Item No.</u>	<u>Description of field and positions</u>	<u>Columns</u>
7.	<p>L.S. (Lateral Shielding)</p> <p>0 If side window and no internal shielding</p> <p>1 If no side window and no external shielding</p> <p>2 If lateral shield (house) and in zone 2</p> <p>3 If lateral shield (house) and in zone 3</p> <p>9 Unknown</p> <p>b Not coded cases</p> <p>Note: Zone 2 means the subject is lateral shielded by a single-storied house which is between 3.5 m and 7 m from the subject, or by a two-or-more storied house which is between 3.5 m and 12 m from the subject.</p> <p>Zone 3 means the subject is lateral shielded by a house (1,2 or more stories) which is less than 3.5 m from the subject.</p>	21
8.	<p>I.F.W. (Internal Front Walls)</p> <p>Code number of internal front walls shielding conditions.</p> <p>0 No internal front walls</p> <p>1 One "</p> <p>2 Two "</p> <p>:</p> <p>5 Five or more internal front walls</p> <p>9 Unknown</p> <p>b Not coded cases</p>	22
9.	<p>I.L.W. (Internal Lateral Walls)</p> <p>Code number of internal lateral walls shielding conditions.</p> <p>0 No internal lateral walls</p> <p>1 One "</p> <p>2 Two "</p> <p>:</p> <p>5 Five or more internal lateral walls</p> <p>9 Unknown</p> <p>b Not coded cases</p>	23
10.	<p>H.F. (Height above Floor)</p> <p>Code height above floor in metric units down to one place of decimals. This applies only to the neutron formula. For gamma formula, H.F. is a constant which is 0.9 m. Therefore H.F. less than 0.9m for gamma formulas will always be changed to 0.9 m by machine decision.</p> <p>90 Unknown</p> <p>bb Not coded cases</p>	24-25
11.	<p>F.N. (Floor Number)</p> <p>Code number of floors as follows:</p> <p>1 Single story house</p> <p>2 First floor of two or more storied house</p> <p>3 Any upper floor of two or more storied</p> <p>9 Unknown</p> <p>bb Not coded cases</p>	26

CODE FOR SHIELDING PARAMETERS

<u>Item No.</u>	<u>Description of field and positions</u>	<u>Columns</u>
12.	S.P. (Slant Penetration) Code distance between the point of entry to the subject in metric units down to two places of decimals. However, penetration distance within F.S. house is excluded. 9000 Unknown bbbb Not coded cases	27-30
13.	Certainty of coding nine parameters FS 31 FSS 32 US 33 LS 34 IFW 35 ILW 36 HF 37 FN 38 SP 39 Code from col. 31 through col. 39 as follows: 1 Coding not questionable 2 Questionable as to application of code 3 Questionable as to shielding drawings 4 Both 2 and 3 above b Not coded cases	31-39
14.	Completeness of shielding drawings prior to coding 1 Complete, coded by existing data 2 Incomplete, information added from area photograph or other sketch maps 3 Incomplete, information added by field investigation 4 Both 2 and 3 above 9 Other than above	40
15.	Attenuation factor (T57D) Code T57 Dose attenuation factor as to gamma and neutron which were calculated by means of measurements of slant penetration down to two places of decimals. Gamma attenuation 41-43 Neutron attenuation 44-46 800800 Attenuation calculated by means of angular distribution 900900 Attenuation calculated by other means than above.	41-46
16.	Description of Japanese-type of house 1 Detached house 2 Tenement house (row-house) 3 Dormitory or apartment house 4 School 5 Hospital 6 Shrine or temple 7 Factory 8 Theater 9 Others	47

<u>Item No.</u>	<u>Description of field and positions</u>	<u>Columns</u>
17.	Treatment of house The houses where the subject was exposed are divided as follows: 1 A single unit 2 Two units 3 Three or more units 9 Unknown	48
18.	Treatment of projection a. Subject is exposed in a single story projection where the projection is less than 2 m and is annexed to the two story unit. This house altogether will be treated as a single unit. Code according to direction of the A-bomb. 1 Not applicable 2 Penetration through two stories unit 3 No penetration through two stories unit 4 Penetration parallel with two stories unit 9 Unknown b. If projection of a house is more than 2 m, it is usually treated as a separate unit. However, if the subject was exposed behind this projection in the annexed unit and no shielding in direction of the A-bomb, this projection cannot be considered as a separate unit nor considered as FS. Code this situation as: 1 Not applicable 2 Applicable 9 Unknown	49-50
19.	Elevation Code situations of elevations by terrain, river bank, rock fence, etc., which were used in coding LS. 1 Not applicable 2 Applicable 9 Unknown	51
20.	Grove Code situations where wooden or bamboo grove were used in coding LS. 1 Not applicable 2 Applicable 9 Unknown	52
21.	Present coding disposition 1 Coded 2 Not coded because shielding information not sufficient 3 Not coded because exposed inside building without mud walls 4 Not coded because exposed under corridor between buildings or on platform of railway station 5 Not coded because exposed outside of building 9 Not coded because of other reasons than above Note: For cases coded as positions 2 through 9, items 4 through 13 in part II will not be coded.	53

CODE FOR SHIELDING PARAMETERS

Items No.	Description of field and positions	Columns
22.	<p>Sea level</p> <p>Code height in 10's of meters. This item applies only for Nagasaki data.</p> <p>00 Less than 10 m</p> <p>01 10-19 m</p> <p>02 20-29 m</p> <p>: :</p> <p>09 90-99 m</p> <p>: :</p> <p>20 200-209 m</p> <p>90 Unknown</p>	54-55
23.	<p>Class of estimating dose</p> <p>1 Good estimate</p> <p>2 Fair estimate</p> <p>3 Rough estimate; No Shielding History</p> <p>4 No estimate; for example, includes some cases exposed inside concrete building, where method of estimating transmission factor is not yet available. In general, heavily shielded cases without method of estimation will remain in this category.</p>	56
24.	<p>Method of estimating dose</p> <p>1 By air dose alone</p> <p>2 By 9-parameter formula</p> <p>3 By globe application</p> <p>4 Applied average transmission factor derived from the 9-parameter code for cases exposed inside of Japanese type of houses or light constructions for subjects which have no Shielding History</p> <p>0 No method available</p>	57
25.	Reserve columns	58-74
26.	<p>Card design number</p> <p>Use 465 for card design number</p>	75-77
27.	Reserve columns	78-80