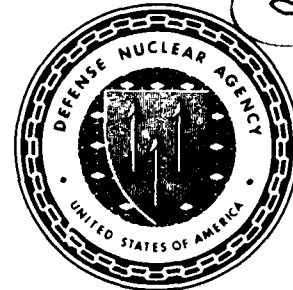




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Japanese Nuclear Casualty Data Combined Injury and Mortality Analysis

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March 1990

Technical Report



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PREFACE

— This report summarizes the work performed on Contract DNA001-83-C-0154: Japanese Nuclear Casualty Data. Part I discusses development of the LD₅₀ for human lethal-radiation dose. Part II describes effort in developing Combined Injury Analysis.

It is important to recognize that the results presented in Section 2 are preliminary. The combined injury data presented here are based on weapon yield information that has been superseded by the DS86 reassessment. It is expected that definitive results will be provided in a future effort.

Special thanks are extended to Dr. Young and Mr. S. Levin, whose assistance and encouragement were very helpful. In addition the work of Mr. Wayne Rhoades, ORNL, and his associates is gratefully acknowledged. Their continual coordination and attention to detail have been instrumental in the effort to obtain valid LD₅₀ results.

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SECTION 1
DETERMINATION OF HUMAN LD₅₀ FOR PROMPT RADIATION

Human lethal-dose due to radiation has been uncertain for many years. In particular, determination of the LD₅₀ (radiation level causing 50 percent mortality) for healthy humans is the goal of the current study. The primary reason for the long-standing uncertainty was the lack of accurate exposure level information for those persons subjected to high levels.

An obvious source of information was those humans present at the explosion of the atomic bombs at Hiroshima and Nagasaki. Casualty data for these events have been available for many years. Almost immediately after the nuclear attacks, the Japanese initiated studies of these events. After the end of World War II, the United States joined in this effort. The casualty data collection was essentially completed within a few months. However, some additional follow-up data were also obtained a year or so later and these data were included with the original information. Additional data collection efforts have continued to the present time in an attempt to improve the determination of the human biological response to nuclear-radiation exposure. Many special studies and surveys of selected buildings, groups of people, and individuals have been done by the Japanese and others. The data base upon which the present study is based is believed to be the most complete available from information available in the United States.

A search of the data base was undertaken to determine those case histories who received significant radiation dose without suffering significant injuries due to blast and/or burns. Generally, those cases situated outside or in wood-frame buildings located in high radiation areas received blast and/or burn injuries; if they were far enough away to escape such injuries, the radiation levels were too low to be of interest for this study.

About 20 years ago, Mr. L. Wayne Davis and his associates at the Dikewood Corporation pointed out the existence of a data source in seismically-reinforced concrete (RC) buildings, and proposed that it be exploited. However, it was not possible at that time to determine radiation levels because no suitable detailed shielding methodology existed to allow estimates inside a reinforced concrete building. In addition, the calculations would have been too lengthy to be undertaken with computers of the day. Both of these problems have recently been overcome. At a meeting in September 1985, personnel from Oak Ridge National Laboratories (ORNL) presented results obtained using the TORT (Three Dimensional Oak Ridge Radiation Transport) code,

showing that detailed calculations of the type needed to obtain the needed radiation levels in RC buildings were feasible.

Attention focused on two seismically-reinforced concrete (RC) buildings in Nagasaki: Chinzei School (Fig 1) and Shiroyama School (Fig 2) in which individuals exposed to high radiation levels were protected from blast (25-28 psi) and burn injuries by the structures (Ref. 1). Figure 3 shows the locations of the two schools relative to the hypo-center. Individuals located in these buildings provided the basis for the LD₅₀ study effort described in this report.

Location of personnel was derived from case histories for the occupants of Chinzei and Shiroyama, listed in Tables 1 and 2. Figure 4 shows that the roof of the Chinzei school collapsed, killing all nine persons on the third and fourth floors. Therefore, detailed dose calculations were not made for these floors. The Chinzei School was approximately 500 meters from ground zero and the bomb detonated at about 500 m height, so that the blast and radiation struck the building at about 45 degrees from the northeast. Many persons on the second floor (Fig 5) located closest to ground zero were crushed. Persons located on the basement, first, and second floors of the concrete building who survived the first day with minor burn and blast injuries were used in this LD₅₀ study.

The Shiroyama School was about 550 yards from ground zero. Doses were calculated for the 2nd and 3rd floors of building two only, since there were no persons on the first floor. Building #1 to the right of building two (Figure 2) was not included in the study because of the few cases located there. It was used only to calculate the radiation shielding effects on building 2. A considerable number of blast and/or burn injuries were rejected from the cases included in this study.

Factors that could influence the LD₅₀ study were examined. They included the following:

- Case history locations--It was necessary to locate each individual prior to calculation of radiation exposure levels. A right-handed coordinate system with the origin at the center of each building was adopted, with positive x defined parallel to the longest dimension of the building and extending toward ground zero. Using the data available, each case history was located on the building plan. Once the best estimate of location was determined, the x and y position was defined using the coordinate system described above. The z-coordinate identifies the body midpoint, taken as 1, 2, or 3 feet above the floor; these values represent prone, sitting, and standing postures, respectively. Positions are summarized in Tables 3 and 4 for those cases used in this study.

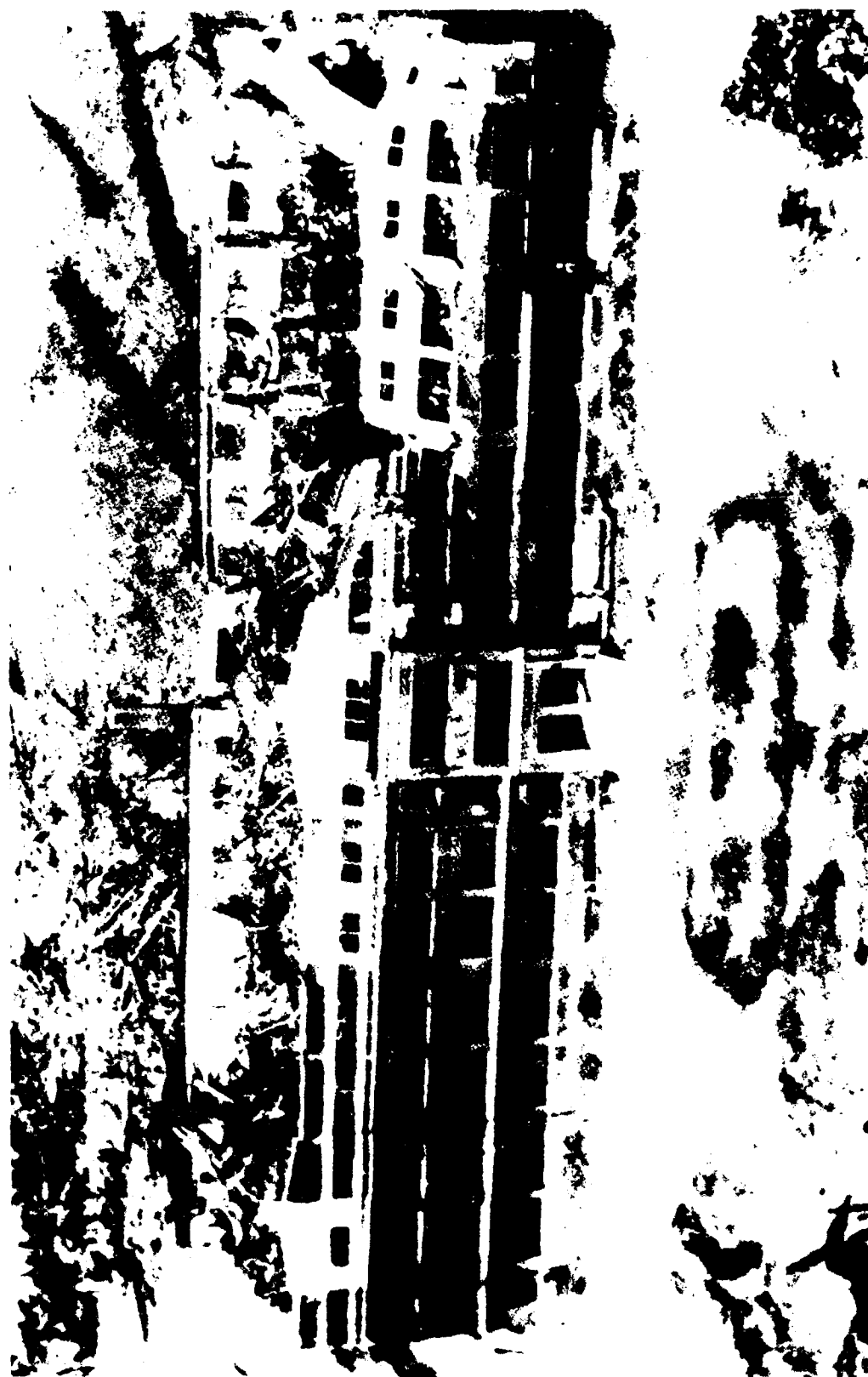


Figure 1. Aerial view of Chinzei school.



BUILDING 2 AT LEFT

Figure 2. Shiroyama school.



Figure 3. Location of Chinzei and Shiroyama schools relative to hypocenter.

Table 1. Detailed list of all cases.
(Chinzei Middle School)

Case	Room	Sex	Age	Prognosis*	Other remarks
Underground					
1	I	M	19	S	epilation, radiation effect
2	I	M	17	S	wounds on face, arms and thighs slight radiation effect
3	I	F	23	S	epilation, radiation effect
4	I	M	19	S	wound on face, radiation effect
5	I	F	18	M	died on 6th September by radiation
1st floor					
6	II	F	26	M	burn on head died on 12th August
7	II	M	35	I	wounds and burn died at 3 p.m. 9th August
8	II	F	26	I	wounds and slight burn died afternoon of 9th August
9	II	F	18	I	died at 3 p.m. 9th August blast?
10	II	F	18	S	burns on face radiation effect ?
11	II	F	22	M	died afterward radiation effect
12	II	F	23	M	died afterward radiation effect
14	II	F	16	I	blast ? crushed ?
15	II	F	16	I	blast? crushed?
16	II	F	18	M	died after 1.5 months radiation
17	II	F	18	M	died afterwards radiation effect ?
91	III	M	55	I	crushed
92	III	M	15	S	fracture of left leg, radiation ?
18	IV	M	30	M	burn on face, back, arms and hands, died on 3rd September

Table 1. Detailed list of all cases (continued).
(Chinzei Middle School)

Case	Room	Sex	Age	Prognosis*	Other remarks
108	IV	M	15	I	blast
109	IV	M	15	I	blast
110	IV	M	15	I	blast
111	IV	M	15	I	blast
112	IV	M	15	S	wound on head, radiation?
113	IV	M	15	I	blast
114	IV	M	15	I	blast
115	IV	M	15	M	died afterwards, radiation?
116	IV	M	15	I	blast
117	IV	M	15	I	blast
118	IV	M	15	I	blast
101	V	M	19	S	fracture of left leg, radiation?
102	V	M	19	M	wound on head, died after one month by radiation
103	V	M	19	S	epilation, epistaxis wounds on head and shoulder
104	V	M	19	M	diarrhea, died after 7 days
105	V	M	19	M	died afterwards
106	V	M	17	I	died
107	V	M	17	M	died after 7 days, radiation
13	VI	M	26	S	epilation, wound on head radiation
2nd floor					
35	VII	M	20	I	crushed, burned
36	VII	M	29	I	crushed, burned
37	VII	M	24	M	burn on upper half of body, died on 12th August
38	VII	M	20	I	crushed, burned
39	VII	M	24	I	died after 6 hours

Table 1. Detailed list of all cases (continued).
(Chinzei Middle School)

Case	Room	Sex	Age	Prognosis*	Other remarks
32	VIII	M	29	M	burn on upper half of body died on 11th August, radiation
33	VIII	M	19	I	crushed, burned
34	VIII	M	30	I	blast
19	IX	M	33	I	burned, crushed ?
20	IX	M	26	I	burned, crushed ?
21	IX	M	42	I	burned, crushed ?
22	IX	F	20	I	burned, crushed ?
23	IX	F	19	I	burned, crushed ?
24	IX	F	21	I	burned, crushed ?
25	IX	M	27	I	crushed
26	IX	M	27	M	died after 2 weeks, radiation
27	IX	M	38	M	burn on face, back and hands died on 26th August
28	IX	M	31	I	crushed
29	IX	M	21	I	burned, crushed?
30	IX	M	24	M	burns on face, chest, and hands died on 5th September
31	IX	F	16	I	burned, crushed ?
40	X	M	18	M	slight burn, died on 1st September, radiation
41	X	M	19	I	blast ?
42	X	M	18	I	blast ?
43	X	M	19	M	pharyngitis, diarrhea, died on 18th August, radiation
44	X	M	19	I	blast ?
45	X	M	19	I	blast ?
46	XI	M	27	M	burn on face, hands and feet died on 24th August, Radiation
47	XI	F	23	I	crushed

Table 1. Detailed list of all cases (continued).
(Chinzei Middle School)

Case	Room	Sex	Age	Prognosis*	Other remarks
48	XI	M	18	I	crushed
49	XI	M	23	M	burn on whole body, died on 11th August by shock?
50	XI	F	19	I	burned
51	XI	F	19	I	blast ?
52	XI	F	19	I	blast ?
53	XI	F	19	I	blast ?
54	XI	M	24	M	burned, died on 10th August
88	XII	M	65	S	no injury
89	XII	M	35	M	epilation, purpura, pharyngitis died afterward by radiation
90	XII	M	44	M	epilation, purpura, gingivitis died after one month
93	XII	M	41	S	epilation, gingivitis
94	XII	M	48	S	epilation, anemia
95	XII	M	63	S	epilation, pharyngitis
96	XII	M	20	M	epilation, pharyngitis died on 4th September
97	XII	M	47	S	epilation, gingivitis
3rd floor					
55	XIII	M	34	I	blast
56	XIII	M	24	I	blast
57	XIII	M	19	I	blast
58	XIII	F	22	I	blast
59	XIII	M	16	I	blast
60	XIII	F	23	I	blast

Table 1. Detailed list of all cases (continued).
(Chinzei Middle School)

Case	Room	Sex	Age	Prognosis*	Other remarks
<u>4th floor</u>					
98	XIV	M	16	I	bleeding from wound on back, died afterward
99	XIV	M	16	I	crushed
100	XIV	M	16	I	crushed

*Prognosis - Key to Symbols

S - Survived

M - Mortally injured - died within 90 days

I - Immediate death (died on the first day)
Includes those cases that could not be located after the blast.

Table 2. Detailed list of all cases.
(Shiroyama School)

Case	Room	Sex	Age	Prognosis	Other remarks
3rd floor					
S7	I	F	30	I	crushed
S26	I	F	23	I	blast
S33	I	F	22	I	blast
S34	I	F	20	I	corpse unidentified
S41	I	F	23	M	died after a few days
S51	I	F	23	M	died after 5 days
S52	I	F	20	M	died after 10 days by radiation (no wound)
S54	I	F	23	M	died after a few days
S64	I	F	20	I	blast
S97	I	F	16	I	corpse unidentified
S99	I	F	17	I	corpse unidentified
S100	I	F	18	I	corpse unidentified
S113	I	M	19	M	died on 14/VIII by radiation (no wound)
S115	I	M	19	I	corpse unidentified
S116	I	M	19	I	(no data listed)
S5	II	M	27	I	crushed
S42	II	F	21	M	fracture of both legs, died after 10 days by radiation (diarrhea)
S56	II	F	18	M	laceration on scalp, died after a week by radiation
S63	II	F	20	I	blast
S65	II	F	20	M	died on 23/VIII by radiation
S73	II	M	19	M	laceration on scalp died on 10 /VIII
S96	II	F	17	I	corpse unidentified
S101	II	F	18	M	died on 27/VIII

Table 2. Detailed list of all cases (continued).
(Shiroyama School)

Case	Room	Sex	Age	Prognosis	Other remarks
S102	II	F	18	I	died after 1 or 2 hours
S114	II	M	18	M	died on 19/VIII by radiation
S6	III	M	46	I	blast
S24	III	F	23	I	blast
S35	III	F	20	I	corpse unidentified
S84	III	F	17	I	corpse unidentified
S94	III	M	18	M	died after 3 days (no wound)
S93	III	M	16	I	contusion on chest, died at 5 o'clock in the afternoon
S110	III	F	15	M	died after 14 days by radiation
S118	III	M	20	M	died on 10/VIII (shock of burn)
S119	III	M	17	I	crushed
S10	IV	M	23	M	died 20/VIII by radiation (purpura, stomatitis)
S17	IV	F	21	M	wound on scalp, died after a week by radiation
S20	IV	F	23	I	blast
S30	IV	F	22	M	wounds on scalp and shoulder died after a week by radiation
S31	IV	F	22	M	wound on leg, died after a week by radiation
S38	IV	F	21	M	(no injuries listed)
S49	IV	F	26	M	much bleeding from wound on scalp died after a week
S53	IV	F	20	M	fracture of leg, died after a week by radiation
S78	IV	F	17	M	burn on extensive area died on 19/VIII
S79	IV	F	17	I	(no injuries listed)
S87	IV	F	16	M	burn on extensive area died on 19/VIII

Table 2. Detailed list of all cases (continued).
(Shiroyama School)

Case	Room	Sex	Age	Prognosis	Other remarks
S88	IV	F	16	M	died on 19/VIII by radiation (no wound)
S109	IV	F	18	M	burn on extensive area
S21	V	F	23	M	died after a week by radiation (no wound)
S23	V	F	23	M	died after a week by radiation
S32	V	F	20	M	died after a week by radiation
S40	V	F	25	M	died after 3 days (rupture of visala in abdomen?)
S44	V	F	20	M	wound on scalp, died after 10 days by radiation
S45	V	F	21	I	crushed
S77	V	F	17	I	crushed ?
S92	V	M	16	I	crushed ?
S108	V	F	18	I	crushed ?
S25	VI	F	23	I	died at 5 o'clock (edema on face)
S27	VI	F	22	M	died after a week by radiation (diarrhea) (no wound)
S43	VI	F	20	M	slight wound on scalp, died after 10 days by radiation
S46	VI	F	21	M	died after 10 days by radiation
S47	VI	F	19	M	died after 10 days by radiation
S83	VI	F	17	I	blast ?
S86	VI	F	16	M	died on 18/VIII by radiation
S90	VI	F	19	M	died by radiation ?
S91	VI	F	16	M	died on 19/VIII by radiation
2nd floor					
S15	VII	F	22	I	died on 9/VIII, burn on back
S68	VII	F	20	I	blast? crushed?
S70	VII	F	18	I	crushed

Table 2. Detailed list of all cases (continued).
(Shiroyama School)

Case	Room	Sex	Age	Prognosis	Other remarks
S72	VII	F	22	I	blast?
S82	VII	F	17	M	extensive burn, died on 26/VIII
S12	VIII	F	24	M	slight wound on face, died on 1/IX by radiation
S19	VIII	F	22	M	died after 5 days by radiation (no wound)
S39	VIII	F	24	M	died after 3 days, severe burn
S60	VIII	F	20	I	blast
S75	VIII	F	23	M	died after a few days
S95	VIII	F	17	S	epilation (+), anemia (+)
S98	VIII	F	17	M	died on 9/IX by radiation
S106	VIII	F	18	M	died on 12/VIII by radiation
S112	VIII	M	19	M	died on 19/VIII by sepsis, glass wound all over the body
S117	VIII	M	19	M	(no injuries listed)
S13	IX	F	24	M	after a week died by radiation
S53	IX	F	17	M	died by radiation
S69	IX	F	20	M	died by radiation
S71	IX	F	19	I	crushed
S76	IX	F	17	S	epilation (+)
S80	IX	F	17	M	severe burn, died in Oct. (remarkable weakness)
S81	IX	F	17	M	severe burn, died in Oct. (remarkable weakness)
S103	IX	F	16	S	epilation (+) stomatitis (+)
S104	IX	F	17	S	radiation effect (+) ?
S105	IX	F	18	M	died on 4/IX by radiation
S36	X	F	20	M	died after a week by radiation (no wound)

Table 2. Detailed list of all cases (continued).
(Shinoyama School)

Case	Room	Sex	Age	Prognosis	Other remarks
S62	X	F	21	M	died on 26/VIII by radiation wound on face
S107	X	F	18	I	died on 9/VIII
S111	X	F	16	M	died after 2 weeks by radiation



LOOKING WEST AT NORTH END OF BUILDING



VIEW OF SOUTH END AND WEST SIDE OF BUILDING

Figure 4. Chinzei school: looking west.



FIRST FLOOR



SECOND FLOOR

Figure 5. Chinzei school: first and second floors.

Table 3. Chinzei School position data.

Case	x(cm)	y(cm)	z(cm)
Basement			
1	-90+90	125+90	60
2	-225+90	325+90	60
3	135+30	-700+30	60
4	210+30	-455+30	60
5	85+30	-755+30	60
First Floor			
11	2960+60	-730+60	60
12	2155+60	-275+60	60
13	1140+60	540+30	60
15	1495+60	-470+60	60
17	3270+60	-720+60	60
92	-410+30	-445+30	90
101	-2090+30	385+60	60
102	-2090+30	480+60	60
103	-2090+30	565+30	60
104	-2090+30	665+60	60
112	-740+90	-70+60	90
115	-420+60	-215+90	90
Second Floor			
26	1580+60	-480+60	60
40	2975+60	540+60	60
43	2425+60	360+60	60
44	-3080+30	525+30	60
49	-3200+30	730+30	60
90	-2980+30	730+30	60
93	-3200+30	525+30	60
94	-3320+30	0+30	60
95	-2960+30	525+30	60
96	-3295+60	-295+60	90
97	-3070+30	730+30	60

Table 4. Shiroyama School position data.

Case	x(cm)	y(cm)	z(cm)
Second Floor			
12	190+60	-135+60	60
18	-290+30	75+30	60
19	+225+60	-345+30	60
36	-1310+90	25+60	60
58	-240+60	-360+30	60
62	-1030+60	25+60	60
69	-470+60	-360+30	60
75	130+30	50+30	60
76	-415+60	-225+60	60
95	435+60	75+30	60
98	645+60	-105+30	60
103	-470+60	60+30	60
104	-195+60	-230+30	60
105	-690+60	60+30	60
111	-1045+60	-135+60	60
117	390+60	-375+30	60
Third Floor			
10	-810+30	-380+30	60
17	-365+60	-135+30	60
21	-1310+60	-350+30	60
23	-1700+60	-375+30	60
27	-2600+60	-270+60	60
30	-390+60	-380+30	60
31	-265+60	-380+30	60
32	-1250+60	65+30	60
38	-120+30	-370+30	60
41	2520+60	75+30	60
42	1560+60	20+30	60
43	-2415+60	-30+60	60
44	-1440+60	-365+30	60
46	-2400+60	205+60	60
47	-2600+60	205+60	60
48	-1545+60	20+30	60
51	2340+60	75+30	60
52	2125+60	55+60	60
53	-250+60	-160+30	60
54	2120+60	270+30	60
56	1315+60	20+30	60
65	1325+30	-390+30	60
86	-2615+60	-25+30	60
88	-110+60	-170+30	60
90	-2210+60	-25+30	60
91	-2235+60	210+60	60
94	115+60	-135+30	60
101	2700+30	55+60	60
110	275+60	-135+30	60
113	2700+30	55+30	60
114	1180+60	20+30	60

- Chinzei school partitions--A request was made to provide any information on location of temporary partitions within the building. An estimate of the partition locations was transmitted to ORNL. The U.S. Strategic Bombing Survey (USBSS) documents state that the partitions were made of wood lath and plaster. However, photographs of the building interior strongly suggest that they were metal screen covered with stucco-like materials. This conflict was later resolved through additional information obtained from similar structures in Japan.
- Reinforced concrete construction--Because of the manner in which the roof collapsed at Chinzei school, there was conjecture that the pillars supporting the upper floors were concrete with bamboo reinforcement, rather than steel. However, there is no evidence that such was the case; the collapse of the upper level walls can be correlated to the construction described in the USBSS survey. The north end of the building had a steel truss roof with no pillar support above the third floor level. The roof over the south half of the building was wood truss construction supported by wooden pillars resting on the fourth floor of reinforced concrete.
- Ages of persons in Chinzei school--Several models exist in converting the free-in-air KERMA to midline and bone marrow dose. The choice of model depends on the weight and age of the person. A review of the case histories shows an age range of 15 to 65 years, with the median being 20. Based on these data, the 55 kg adult model is appropriate, and was used for this study.
- Chinzei school basement--Five persons were located in the basement of Chinzei school. Data were available for all persons in the basement. None received burns. Only two received any mechanical injuries, which were very minor. The basement group represents a significant portion of the survivors, and was included in the TORT calculations.

Once the preliminary positions were established, radiation levels were calculated at Oak Ridge. Based on that information, preliminary LD₅₀ estimates were calculated using a log probit curve fit. When results were examined, the following considerations were reviewed.

- A. Computed dose received by each individual--The high radiation gradients observed inside the buildings demand a location accuracy for each person that cannot be achieved from information in the database. Even if the accuracy were attainable, a large change in radiation occurred across the body dimensions. Some method of obtaining an equivalent uniform dose is required.

It was decided to obtain a best estimate of case history location and additionally provide a tolerance in position based on the data available. The radiation level changes within this location tolerance were examined. A final approach to obtain an equivalent uniform dose was developed once the data obtained from the above steps was available.

- B. Effects of the pressure wave on subject location--The pressure wave arrived about one second after weapon detonation. It is estimated to have created an overpressure of 25-28 psi. Although the mach stem had not yet fully formed at this range, the shock wave was sufficient

to collapse the roof of Chinzei school and to disintegrate the temporary partitions in the buildings. There is little doubt that it also displaced persons inside the building, especially if they were standing. A significant portion of the radiation came from the delayed gamma originating in the fireball, delivered after the shock wave had reconfigured the building and moved persons from their earlier positions.

The Chinzei school photographs were reviewed to ascertain if an estimate of subject displacement could be made. The review showed that it would be virtually impossible to define the displacement, because of the complex manner in which the shock wave interacted with the building openings and walls. In some cases a pressure backfill was evident. It was decided that the displacement would be limited to changing the standing persons to a prone position after the shock wave had passed.

- C. Effect of building partitions on calculated radiation--Dose calculations assumed the temporary partitions remained in place while all the radiation was delivered. A better approximation was developed, in which the portion of the delayed radiation that occurred after the shock wave was calculated with the partitions removed.
- D. Effects of delayed source directional distribution--ORNL has observed that the computer code for delayed gamma, obtained from SAIC, caused many negative values inside the buildings. These negatives were set to zero, and obscured any positive contribution from those directions. The reduction in total dose caused by this anomaly was not known at the time of calculation.
- E. Effects of building model simplifications--The first model used for Chinzei school considered the building exterior to be rectangular. In reality the main entrance was set forward some distance. There were also offsets of this type at each end of the building. Those individuals that were located near the exterior offset walls were moved to a location in the model such that their distance from the exterior wall was preserved. The effects on radiation dose for those individuals was unknown, but the difference was expected to be small.
- F. Appropriateness of the log probit curve fit--It was suggested that a different distribution may be more appropriate than the widely used log probit curve fitting. In particular, it was suggested that the Weibull distribution be examined.

A program was developed for the Weibull distribution by Dikewood. It follows the iterative process developed by Finney for the probit curve. The LD₅₀ estimated for the combined schools by fitting a Weibull was 380 rads, as opposed to 350 obtained from the log probit iteration, using preliminary radiation data. In both cases the Chi-squared test showed good agreement with the assumed curve shape. For this case it indicates that the log probit and Weibull curve shapes obtained are very similar.

No attempt was made to force a slope for the Weibull nor was a zero value selected. Because of the extra degree of freedom involved in the Weibull curve fit iteration, a larger sample size is required than for the log probit case. The Weibull solution obtained for the 32 samples for Chinzei school resulted in an "A" value less than one,

indicating an unusable result. For either method used, the shape is highly sensitive to the extremes; that is, deaths at low dose and survivors at high dose.

After considering the above factors, a refined study was undertaken in which:

- (a) doses were calculated for the midpoint of the cells in the ORNL model rather than at the corners, since the cases were located in the cells. Figures 6 through 14 show log dose contours for the various floors in each building, when the above factors were included
- (b) case history coordinates were revised to an accuracy of approximately one foot (with ± 3 feet uncertainty in the worst case), and
- (c) the building models were more accurately defined, and are described below.

THE MODELS OF CHINZEI--In the beginning, the Chinzei building model #1 had shell, windows, beams, pillars, and floors from Reference 2. That reference did not give roof details, but Reference 3 indicated a tile roof over the south end of the building and concrete over the auditorium in the north end. In the model, 2" of concrete was used over the auditorium, and the tile was taken as equivalent to 2" of earth. The model had no basement or internal walls.

A basement and internal walls were added to Chinzei model #2. The internal walls followed Reference 4 in the basement and on the first floor, except that the open machine shop in the northeast corner was represented. This same approach resulted in so many conflicts between the blueprint rooms and reported personnel locations on the second floor that some adjustments based on References 5 and 6 were made. The third floor was based on Reference 5 and 6 for similar reasons, and the fourth was based almost entirely on Reference 5. References 5 and 6 gave no indication of wall thickness; however, Reference 4 was followed, insofar as possible, on this point. This reference indicated all walls in the basement and many of the upper-floor walls as 5" concrete walls, with the rest of thin-wall construction, arbitrarily taken as equivalent to 2" of concrete.

Several changes to the building were made between Chinzei model 2 and Chinzei model 3, based largely on the study of the photos and the corresponding layout drawings. The offset of the front wall entrance was added. A 5" thick wall at the front of the basement was removed. The photos indicate that it probably was never built. Windows were added at the rear of the basement. The height of all windows was reduced 11 percent, with a corresponding reduction in dose to areas away from the windows; they were also repositioned to agree with photos. All internal walls were made equivalent to 1-1/8" of concrete, based on available shielding summaries, except the walls adjacent to the stairwells and the basement walls. The stairwell and basement walls remained at 5" of concrete. All thin walls were assumed to have been removed by the blast, while the 5" walls were assumed to remain intact.

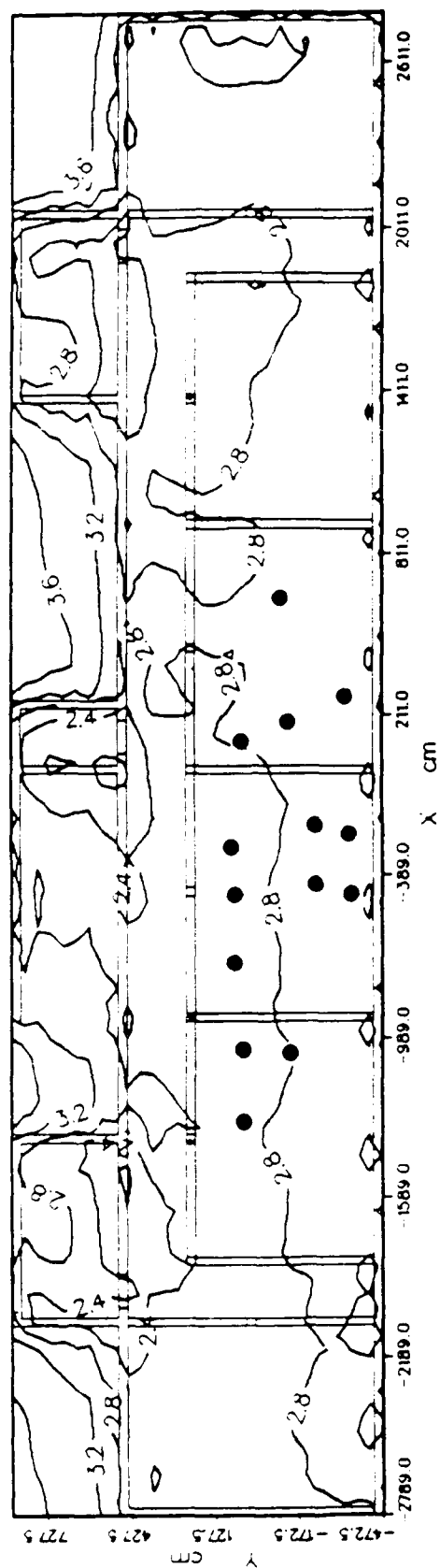


Figure 6. Shiroyama school log dose contours: 48 cm above second floor.

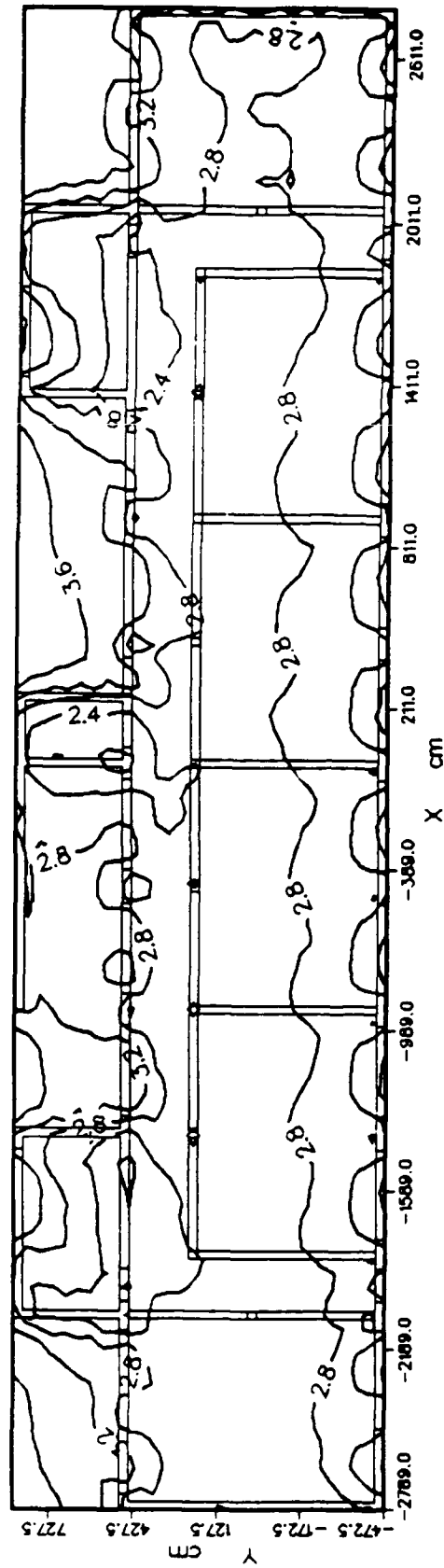


Figure 7. Shiroyama school log dose contours: 150 cm above second floor.

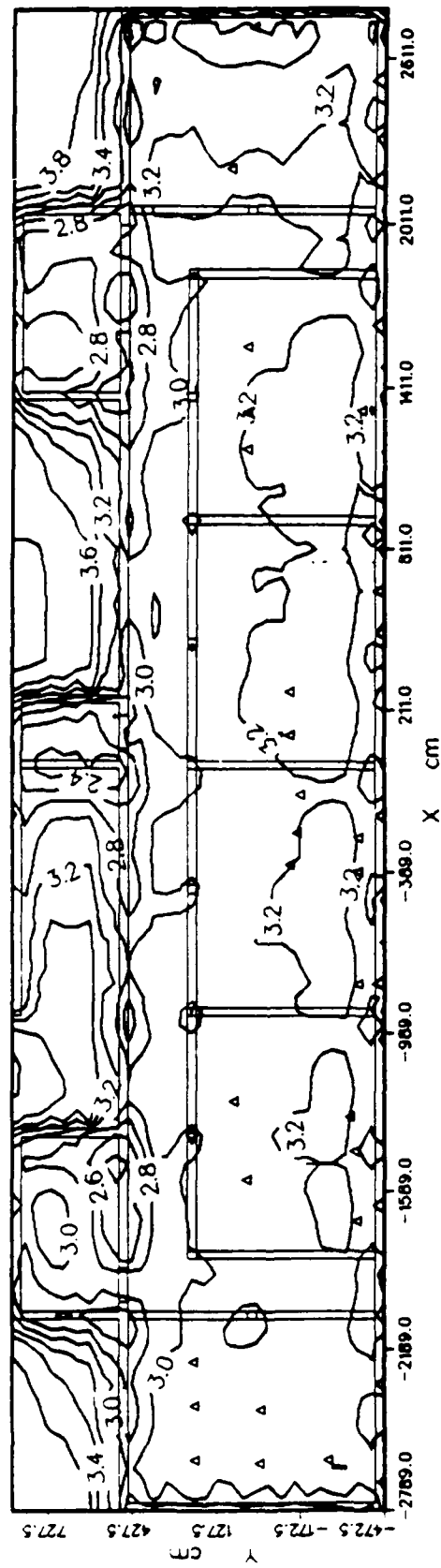


Figure 8. Shiroyama school log dose contours: 48 cm above third floor.

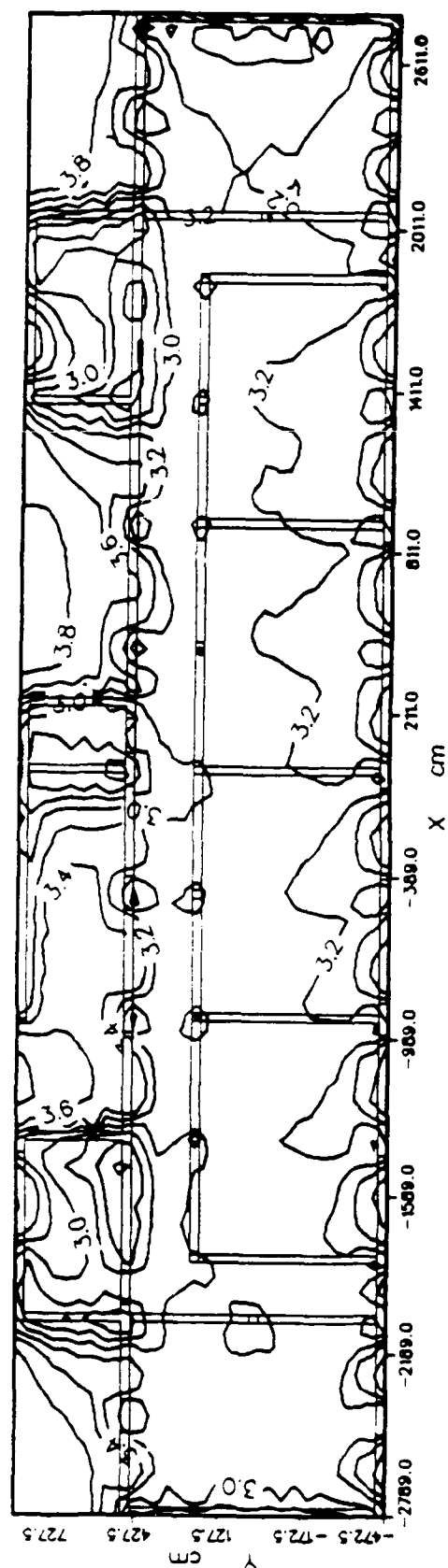


Figure 9. Shiroyama school log dose contours: 150 cm above third floor.

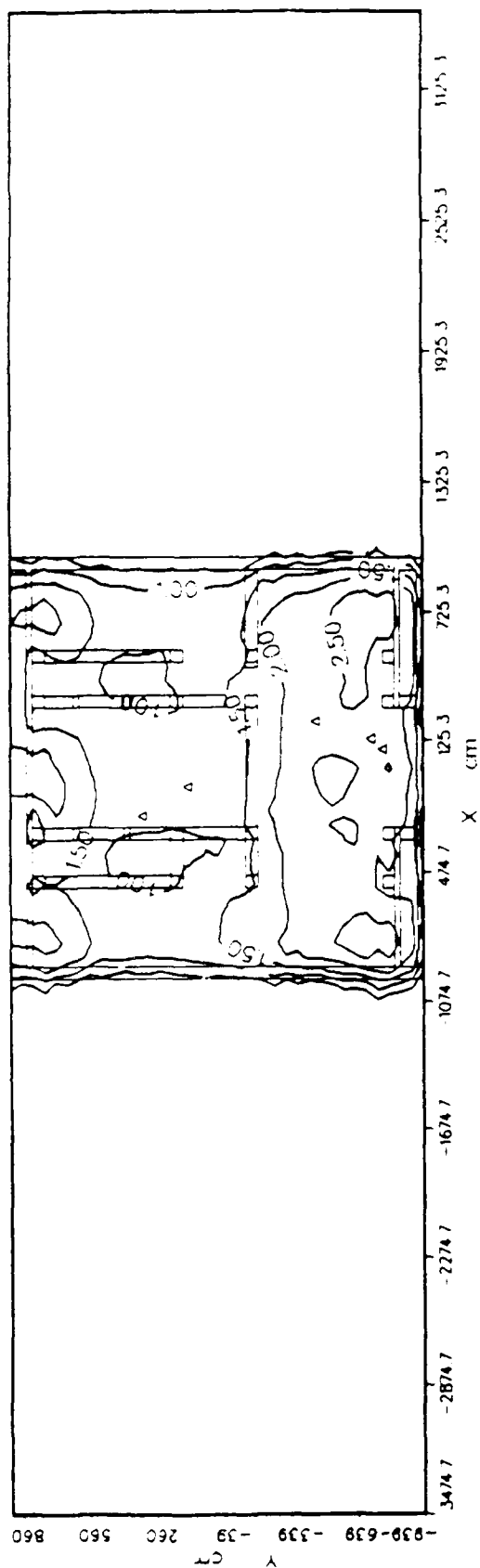


Figure 10. Chinzei school log dose contours: 50 cm above basement floor.

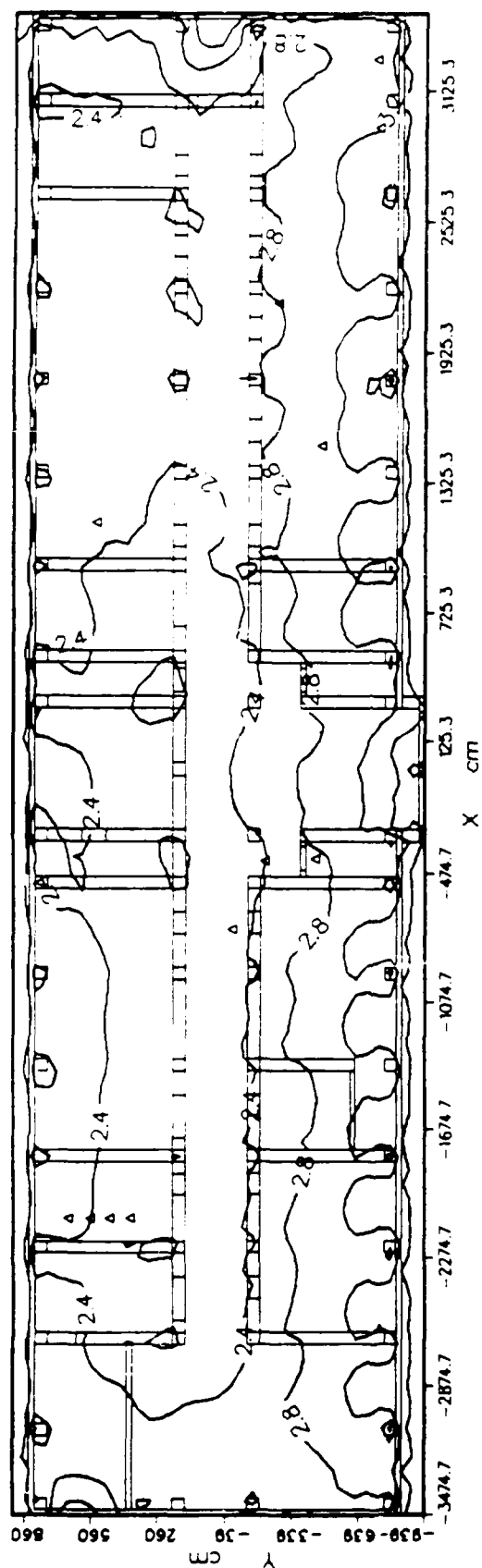


Figure 11. Chinzei school log dose contours: 50 cm above first floor.

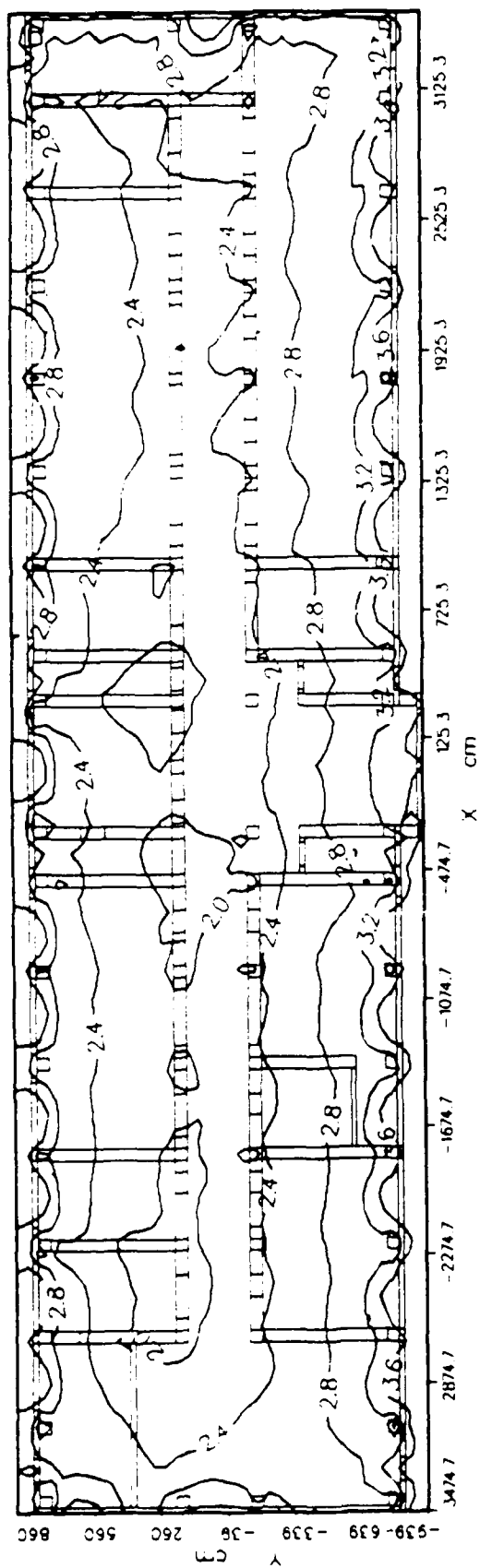


Figure 12. Chinzei school log dose contours: 147 cm above first floor.

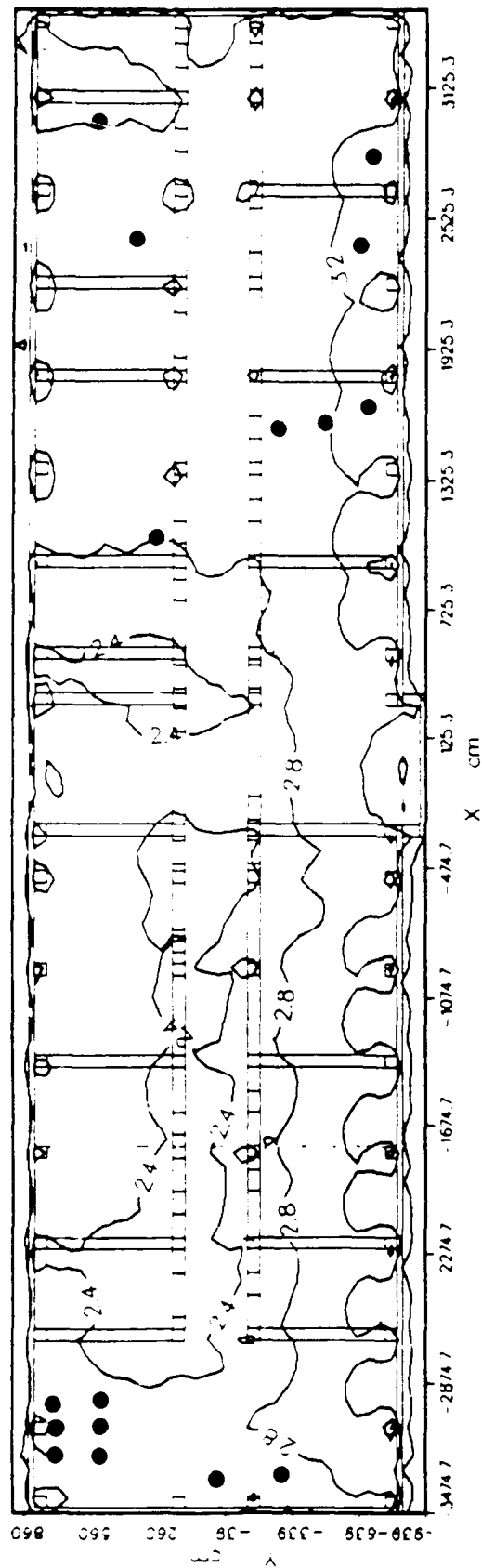


Figure 13. Chinzei school log dose contours: 50 cm above second floor.

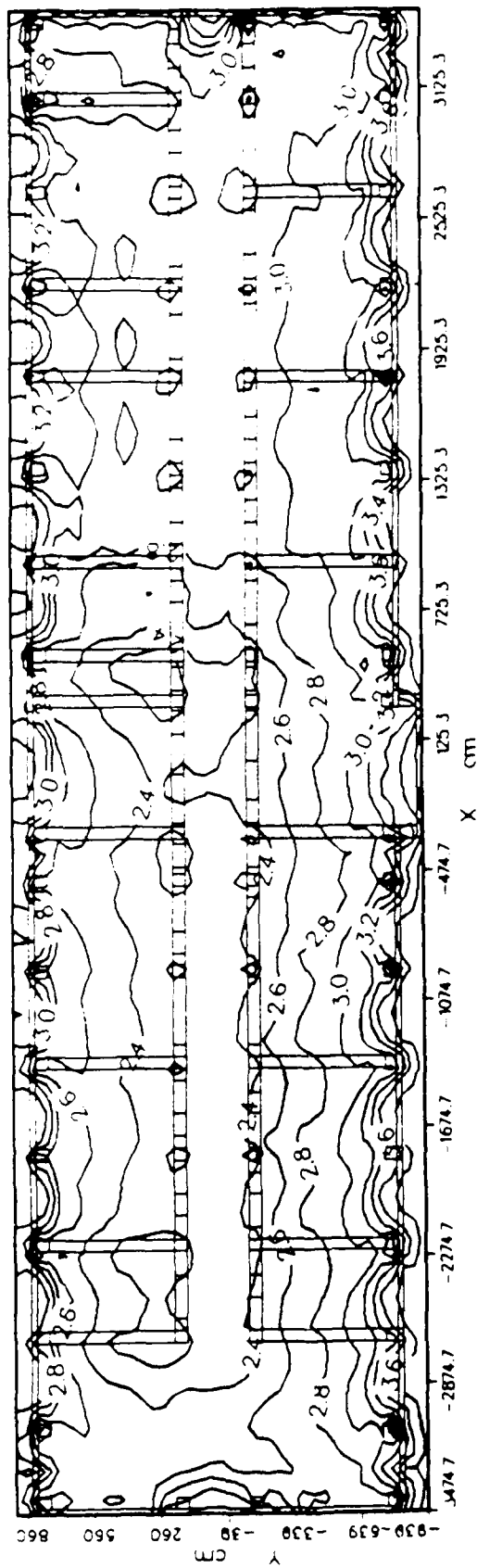


Figure 14. Chinzei school log dose contours: 147 cm above second floor.

At one time, it was intended to raise the building into the air to the height of the hill on which it sat. This was not feasible because of the limited range of the delayed gamma data. It is also questionable whether it would have improved the accuracy without a complete recalculation of ground effect and other related details. The impact of changing the elevation of the buildings was investigated at a later time.

THE MODELS OF SHIROYAMA--The outside shell of the Shiroyama model #1 was constructed largely from Reference 2. Walls were taken as 12" of concrete, while floors were 5 1/2" of concrete. The window sizes and positions were obtained by scaling from sketches in the reference. No details of the east and west walls of the building were available, so a few windows were arbitrarily placed there. Reference 3 gave conflicting values, 8" and 4 1/2" for the wall and floor thicknesses, but there was no reason to prefer those values over the generally-consistent USSBS values. The stairwells on the north side of the building were described, and enough of the passageway to the building adjoining to the north was described to allow proper shielding calculations.

The internal walls were based on Reference 5. The wall thicknesses were arbitrarily taken as 2" of concrete due to inconsistent data in the references.

In the Shiroyama building model #2, the windows on the east and west were removed. One photo was found that indicated that no windows existed on the west wall of the second floor, and it appears likely that both ends were constructed in this way. The passageway to building one on the north side was remodeled to give a better representation. The window height was adjusted from 6' to 7' based on photos, and the window bottoms were raised by 1'2".

The internal wall thickness was also readjusted. The only information available as to thin-wall construction in either Chinzei or Shiroyama buildings is a notation in one of the analyses that a diagonal line through one such wall was equivalent to 10 cm of water. Considering the angle and densities, this is equivalent to approximately 1 1/8" of concrete, and would compare favorably with heavy plaster or stucco construction in pre-war US buildings. Accordingly, this thickness was used for all internal walls in Chinzei 3 and all internal walls except the 5" walls in Shiroyama 2. An extensive attempt to obtain additional evidence as to this construction detail was fruitless.

- d. a final adjustment of building location was made to account for the elevation of the schools (60 feet for Chinzei and 80 feet for Shiroyama).

LD₅₀ estimates were made based on a probit calculation. Results are given in Tables 5 through 7 showing the free-in-air (FIA) and bone marrow estimates. Log probit calculations are presented in Figures 15 through 20. Values including burns and blast have no particular significance because of

Table 5. Cases used in LD₅₀ determination (Chinzei).

Case	Age	Sex	Dose (cGy) Fia Marrow	Died/ Survived	Days After	Injuries	Hospital Records	Remarks	
Basement									
1	19	M	22	17	S	-	Minor Cuts	Yes	No treatment
2	17	M	24	18	S	-	Minor Cuts	No	
3	23	F	352	263	S	-	None	Yes	No treatment
4	19	M	184	136	S	-	Face Wound	No	
5	18	F	326	242	D	28	None Reported	No	
First Floor									
11	22	F	1838	1325	D	?	None Reported	No	
12	23	F	694	486	D	?	None Reported	No	
13	26	M	409	284	S	-	Minor Cuts	Yes	No treatment
16	16	F	1079	765	D	45	None Reported	No	Death Given as 1.5 Mo.
17	18	F	1928	1411	D	?	None Reported	No	
92	15	M	454	319	S	-	Leg Fracture	No	
101	19	M	189	130	S	-	Leg Fracture	No	
102	19	M	216	148	D	31	Head Wound	No	Death given as 1 Mo.
103	19	M	269	182	S	-	Head, Shoulder wounds	No	
104	19	M	388	261	D	7	None reported	No	
112	15	M	246	168	S	-	Head wound	No	
115	15	M	263	184	D	?	None reported	No	

Table 5. Cases used in LD₅₀ determination (Chinzei) (continued).

Case	Age	Sex	Dose (cGy) Fia Marrow	Died/ Survived	Days After	Injuries	Hospital Records	Remarks
<u>Second Floor</u>								
26	27	M	1630	1173	D	14	None reported	No
40	18	M	783	566	D	23	Slight burn	No
43	19	M	1253	916	D	9	None given	No
88	65	M	406	286	S	-	Cut on Head	Yes
89	35	M	327	236	D	?	Minor Contusion	Yes
90	44	M	617	435	D	31	None	Yes
93	41	M	389	278	S	-	Scratches	Yes
94	48	M	631	431	S	-	Minor Cuts	Yes
95	63	M	381	266	S	-	Slight cuts	Yes
96	20	M	536	381	D	26	Cuts, hips, back	Yes
97	47	M	539	384	S	-	Minor head wounds	Yes

1. General surgical treatment, blood transfusion, liver preparation

Table 6. Cases used in LD₅₀ determination (Shiroyama).

Case	Age	Sex	Dose (cGy) Fla Marrow	Died/ Survived	Days After	Injuries	Hospital Records	Remarks
<u>Second Floor</u>								
12	24	F	873	618	0	23	Slight face wound	No
18	24	F	539	382	0	7	None reported	No
19	22	F	1729	1237	0	6	No wounds	No
36	20	F	541	383	0	7	No wounds	No
58	17	F	1756	1260	0	?	None reported	No
62	21	F	543	386	0	17	Face wound	No
69	20	F	1318	957	0	?	None reported	No
75	23	F	629	450	0	?	None reported	No
76	17	F	1057	751	S	-	Minor cuts	See Note 1
95	17	F	684	483	S	-	Lacerations, head, back	See Note 2
98	17	F	795	561	0	31	None reported	No
103	16	F	568	402	S	-	Minor cut	Gen. Surgery Treatment
104	17	F	869	609	S	-	None reported	No
105	18	F	582	414	0	26	None reported	No
111	16	F	669	473	0	14	None reported	No
117	19	F	1056	756	0	?	None reported	No

1. VC injection, wound treatment next day

2. Tetanus serum, Aktisol injection, three blood transfusions (600cc) between 9/4 and 10/10, Glucose, Ringers solution, Liver preparation, Vitamin C.

Table 6. Cases used in LD₅₀ determination (Shiroyama) (continued).

Case	Age	Sex	Nose (cgy) Fia Marrow	Died/ Survived	Days After	Injuries	Hospital Records	Remarks
<u>Third Floor</u>								
10	23	M	2592 1890	D	11	None Reported	No	
17	21	F	1822 1321	D	7	Scalp wound	No	Death after a week
21	23	F	2502 1821	D	7	None	No	Death after a week
23	23	F	2457 1788	D	7	None reported	No	Death after a week
27	22	F	1666 1204	D	7	None	No	Death after a week
30	22	F	2492 1820	D	7	Scalp, shoulder wounds	No	Death after a week
31	22	F	2480 1793	D	7	Leg wound	No	Death after a week
32	20	F	1552 1131	D	7	None given	No	Death after a week
38	21	F	1764 1266	D	?	None Reported	No	Death after a week
41	23	F	1329 951	D	?	None given	No	Death after a few days
42	21	F	1704 1239	D	10	Leg fracture	No	
43	20	F	1526 1108	D	10	Slight scalp wound	No	
44	20	F	1756 1271	D	10	Scalp wound	No	
46	21	F	1400 1012	D	10	None given	No	
47	19	F	1480 1073	D	10	None given	No	
48	21	F	1609 1174	D	7	Scalp contusion, Fractured hand	No	Death after a week
51	23	F	1781 1291	D	5	None reported	No	
52	20	F	1946 1422	D	10	None	No	
53	20	F	1704 1227	D	7	Leg fracture	No	Death after a week
54	23	F	2240 1625	D	?	None reported	No	Death after a few days
56	18	F	1892 1382	D	7	Scalp laceration	No	Death after a week
65	20	F	1802 1308	D	14	None reported	No	
86	16	F	1581 1155	D	9	None reported	No	
88	16	F	1659 1197	D	10	None	No	
90	19	F	1291 929	D	?	None reported	No	
91	16	F	1301 935	D	10	None reported	No	
94	18	M	1908 1385	D	3	None	No	Death after 3 days
101	18	F	1688 1216	D	16	None reported	No	
110	15	F	1864 1347	D	14	None reported	No	
113	19	M	878 636	D	5	None	No	
114	18	M	1877 1366	D	10	None reported	No	

Table 7. Combined school data (LD₅₀) (cGy).

	FIA		Bone Marrow
COHORT-75	412	(4.4)	295 (3.2)
COHORT + BURNS-92	397	(4.6)	279 (5.4)
COHORT + BLAST-80	412	(4.9)	295 (3.6)

Numbers in parenthesis represent the
Chi-squared results for the data.

Two to 60 day cases

BURNS: 6C, 18C, 30C, 27C, 32C, 37C, 46C, 49C, 54C
39S, 78S, 80S, 81S, 82S, 87S, 109S, 118S

BLAST: 40S, 49S, 73S, 106S, 112S

AVERAGE DOSE (cGy)

	FIA	Bone Marrow
Survivors-Cohort (18)	426	300
Died-Cohort (57)	1377	994
Burns (2-60 days) (17)	1576	1136
Blast (2-60 days) (5)	1582	1140

FREE IN AIR COHORT NAGASAKI

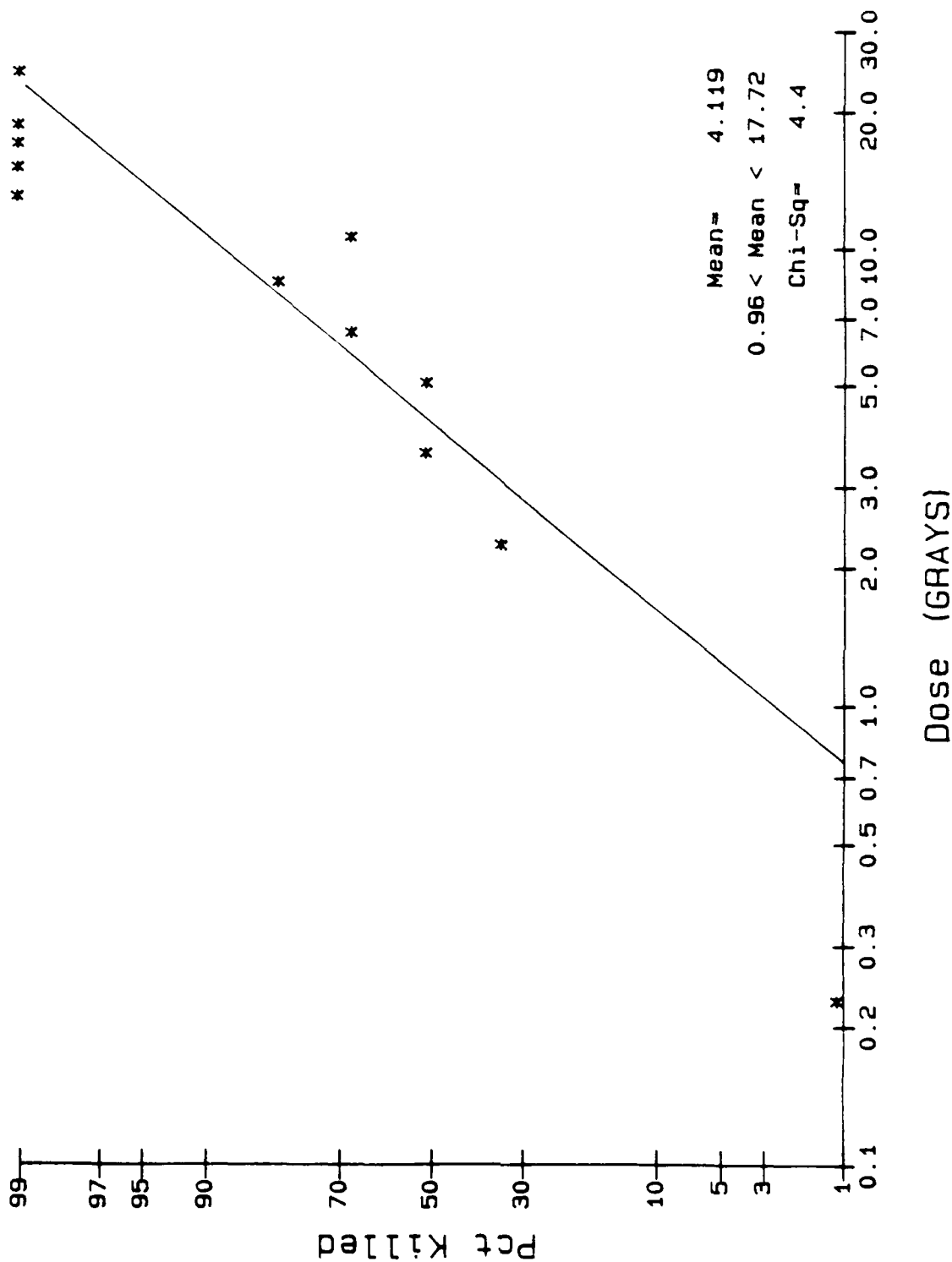


Figure 15. Probit fit--cohort group (FIA).

FREE IN AIR COHORT+BURNS NAGASAKI

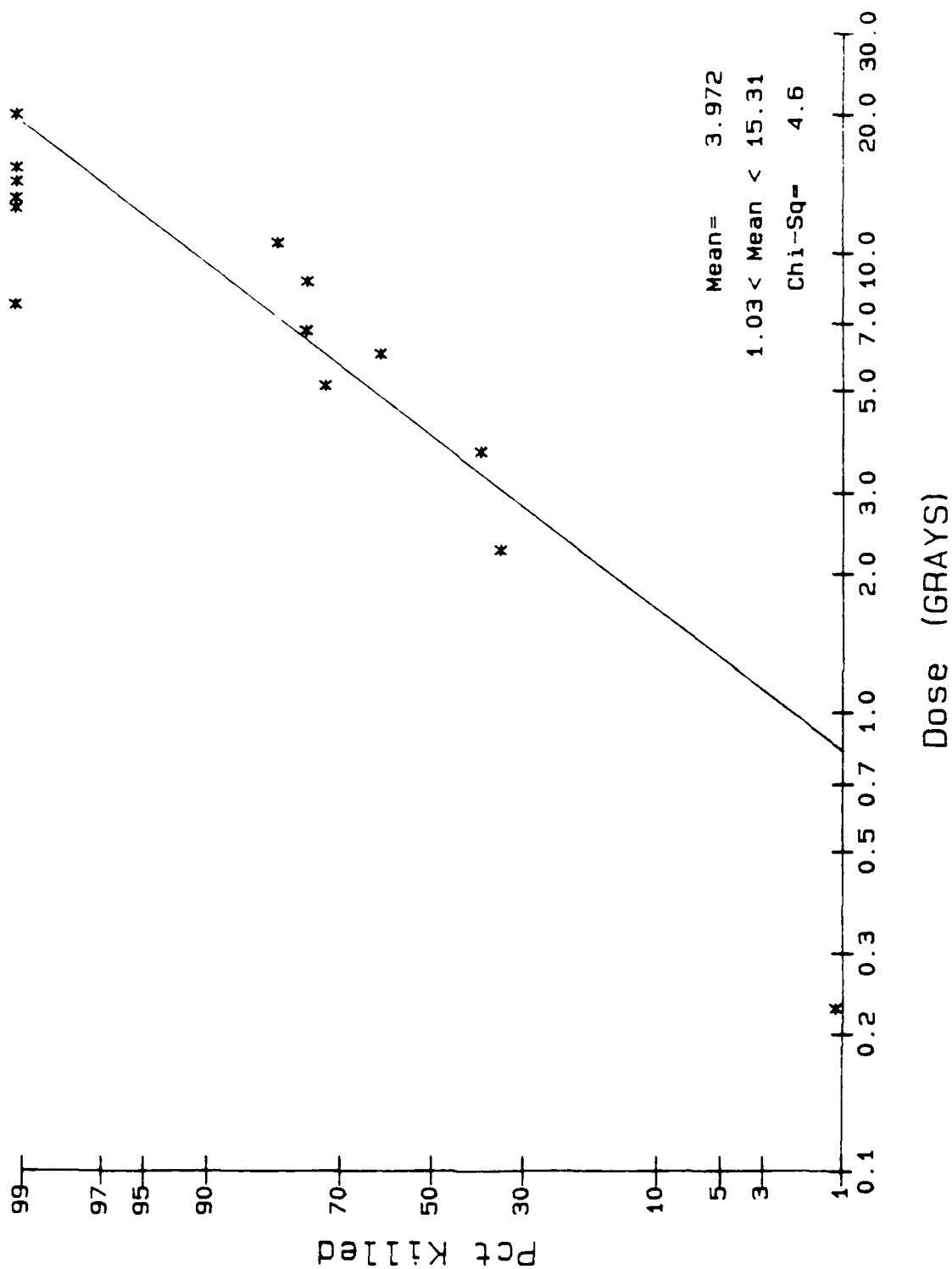
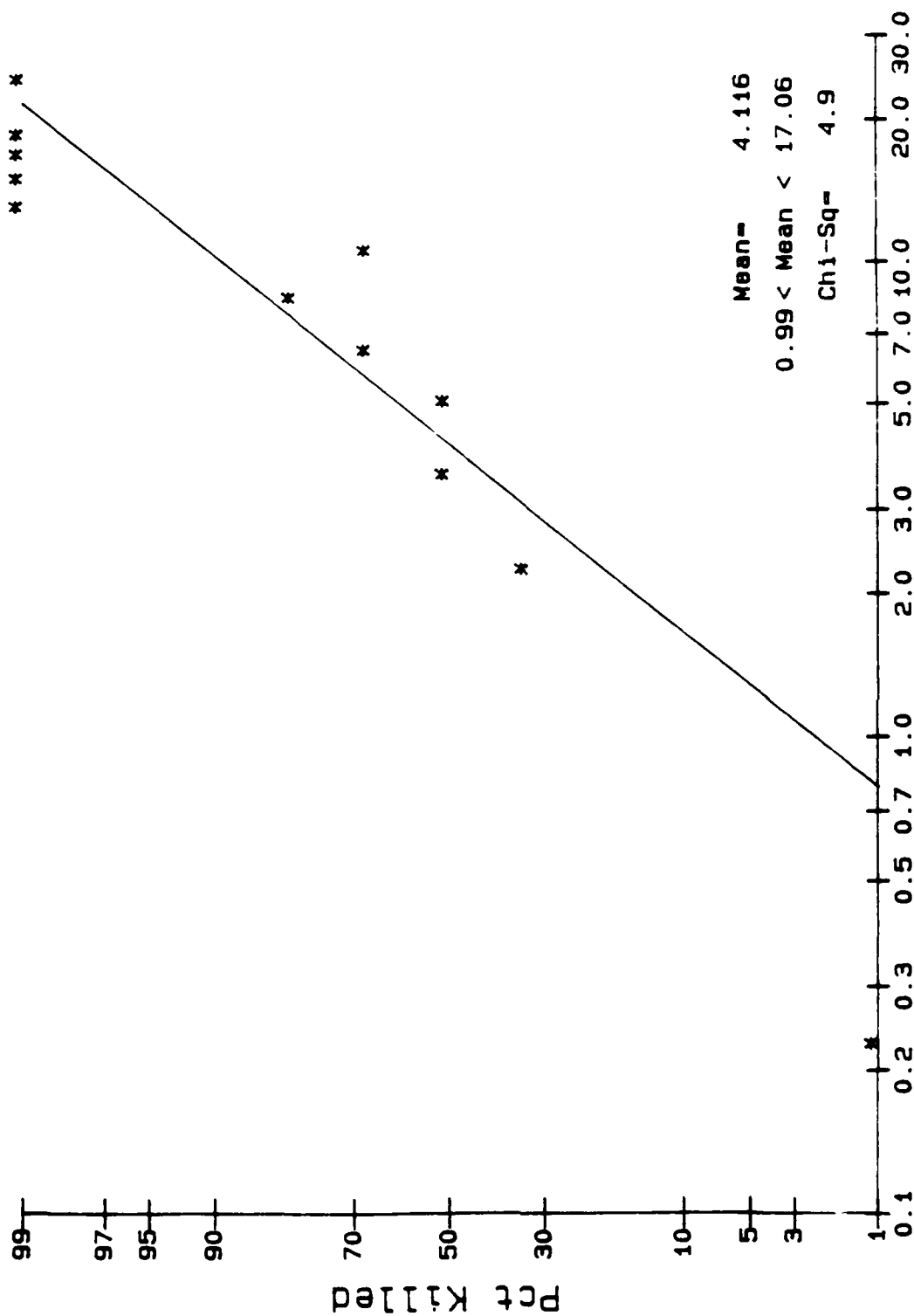


Figure 16. Probit fit--cohort group + burns (FIA).

FREE IN AIR COHORT+BLAST NAGASAKI



Dose (GRAYS)

Figure 17. Probit fit--cohort group + blast (FIA).

BONE MARROW COHORT NAGASAKI

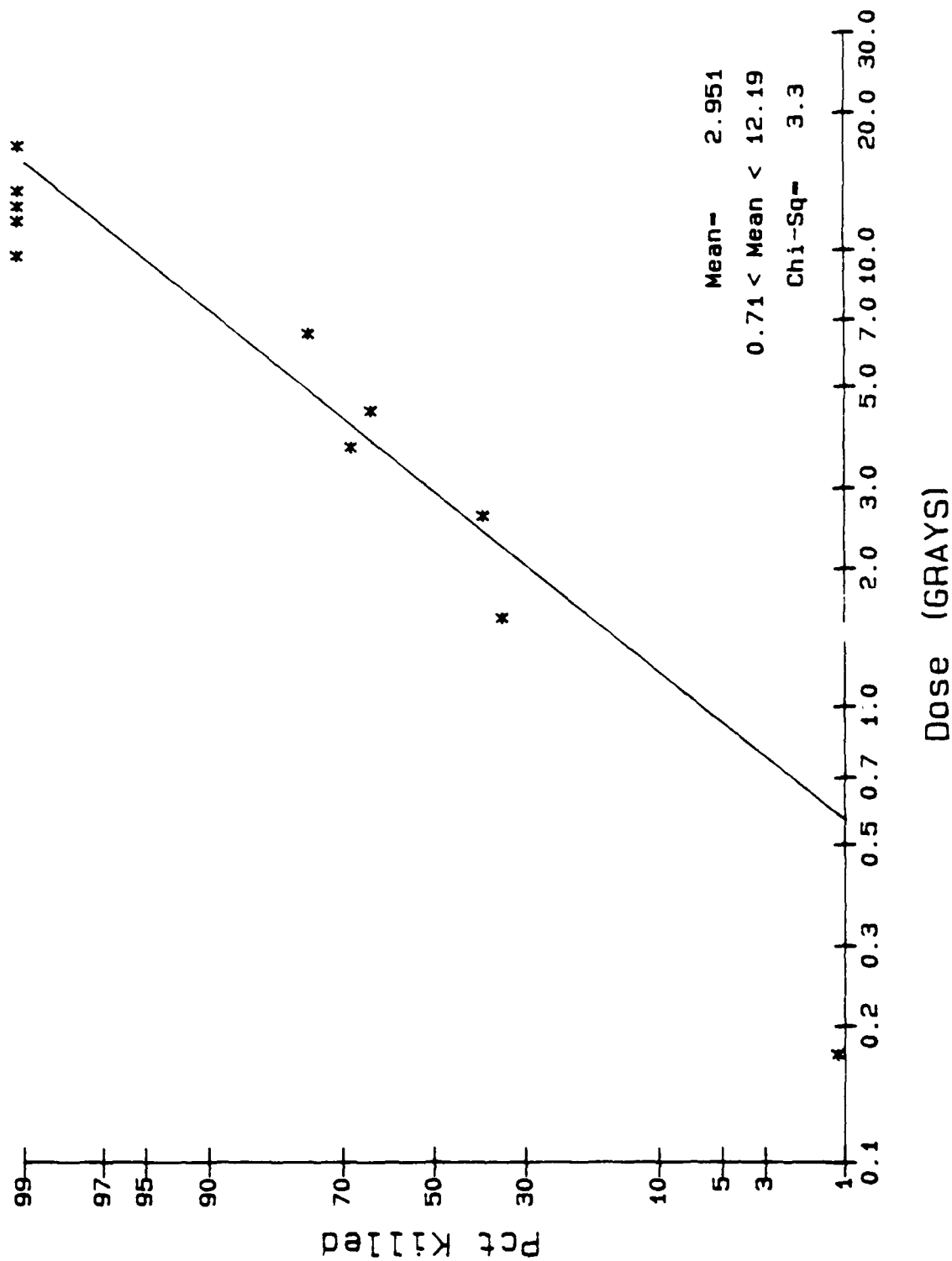


Figure 18. Probit fit--cohort group (bone marrow).

BONE MARROW COHORT+BURNS NAGASAKI

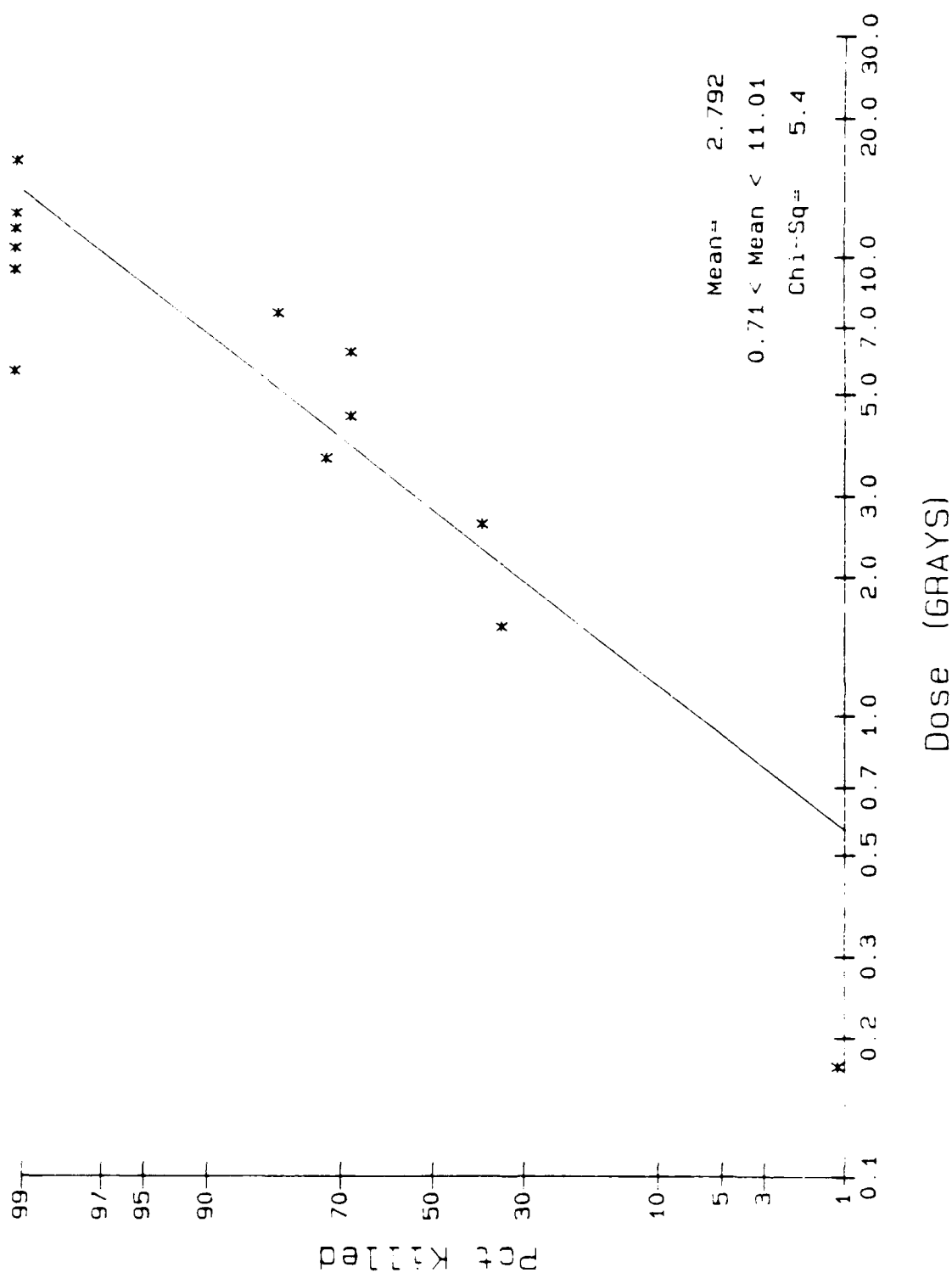


Figure 19. Probit fit--cohort + burns (bone marrow).

BONE MARROW COHORT+BLAST NAGASAKI

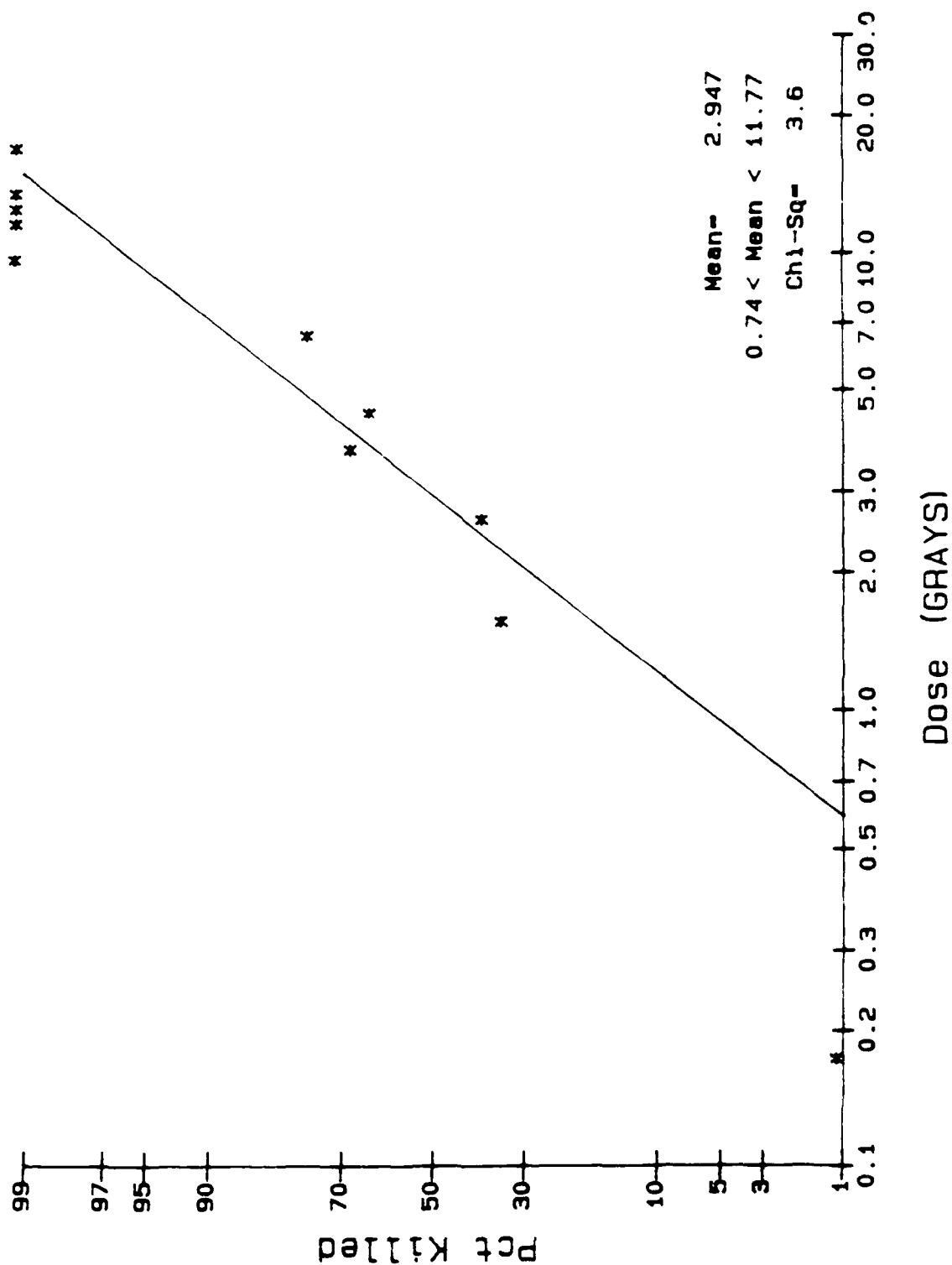


Figure 20. Probit fit--cohort + blast (bone marrow).

the small number of cases. For burns, a decrease in the LD₅₀ is noted, which tends to confirm the popular concept that multiple injuries reduce tolerance to radiation injury. The blast cases show no trend; this is attributable to the small number available and the fact that the dose levels are too high to have an impact on the LD₅₀ estimate.

SECTION 2

COMBINED INJURY AND MORTALITY ANALYSIS

2.1 ORIGINAL WORK PLAN.

- I. Catalog and define programs and data tapes from previous work.
- II. Examine and verify that combined data tapes are adequate to be used for the raw data base.
- III. Develop computer programs to sort the number of single and multiple injury cases that exist for group and nongroup cases.
 - A. Burns Minor
 - B. Mechanical Moderate
 - C. Nuclear Severe

These data were to provide a good indication of the number of cases in each category.

- IV. Provide tabulations by single injury severity, combination severity, and injury versus mortality for each city and data base.
- V. Examine available data and determine suitable response criteria.
- VI. Develop restricted data bases for each injury criteria, including relevant items from the raw data base.
- VII. Based on the criteria and data bases defined above, determine methods of presentation that will be most comprehensive. Analyze data and determine implications.

This plan was not completed since critical data needed for the study did not become available in time to obtain valid results. These critical data were:

- a) revised Hiroshima and Nagasaki yield
- b) revised information necessary to calculate radiation attenuation through the walls of wood frame buildings.

While waiting for the critical data to become available, preparation tasks were completed. Special edit lists were produced at the same time that group data counts were being obtained. These edits were designed to examine certain data elements in each case history and flag those that 1) were identified as match cases that had been combined; 2) contained code numbers that represented out-of-range conditions; 3) showed a large difference between range from hypo-center as coded and as calculated from given coordinates; and 4) had range given with no coordinates listed. The edit lists were manually reviewed, and approximately 100 records were selected for further examination by comparing

them with the written case history records on file at Dikewood. Although this examination did uncover a few coding errors, the general conclusion is that the Combine Tapes do represent the preferred data base source, and the match cases have been correctly incorporated. Corrections have been incorporated in the Combine Tapes for those few errors that were found.

The data base was examined to obtain a breakdown of injuries by shielding category and survival. After examination of the counts for each category, the Hiroshima group data were selected for further examination. Runs were made for outside unshielded (OU) and wood frame (WF) shielding cases. Data were categorized by weapons output, using the 1965 data for thermal exposure for the OU cases and overpressure for WF buildings. Combination injury percentages were listed for each exposure interval. These data are presented in Appendix 1. Listings of injury by psi or cal/cm² exposure are cumulative, and are interpreted as "no worse than." For example, the first column on page 65 is read as "light mechanical with no burns and no more than moderate radiation injury."

2.2 JAPANESE CASUALTY DATA MEETING -- SEPTEMBER 26, 1983.

A working meeting was held to discuss the goals of the Combined Injury Analysis and to define the kinds of injury responses desired.

The following major areas were covered in the meeting:

- a. Radiation symptoms as the effects criteria are of primary concern. Any synergistic effects relating to non-nuclear injuries obtained during the primary analysis are also of interest; however, they are of secondary importance.
- b. Revised weapon yield data for Hiroshima and Nagasaki were discussed. Since this study will provide data as a function of weapons effects, the availability of the revised data was reviewed.
 - 1) Agreement on the yield of the Hiroshima weapon has yet to be obtained.
 - 2) Revision of EM-1 is being managed by Kaman Tempo. DW will investigate the new thermal information being handled by KSC.
 - 3) Overpressure HOB curves are also changing. However, the heights and ranges for pressures less than 10 psi are expected to show minimal change. Kaman is also involved in this revision.

- 4) Revised radiation information is not yet complete. Some asymmetry may appear at short ranges, but is expected to disappear at longer distances, where most of the casualty data are available.
- 5) The "nine parameter" revision is not yet complete.
- 6) Burst heights and hypocenters are expected to change very little, if at all. George Kerr will provide the latest information.

Because of the uncertainty in the availability of revised data for nuclear dose, the same radiation, nine parameter equations and yields as were used in the previous DW study (DC-FR-1306) will be used at this time.

- c. An approach was developed for Phase One of the evaluation, and is detailed in Table 8. The major thrust of this effort is to examine the symptoms that are traditionally associated with nuclear radiation, to see if they may also be present when only blast and burn injuries occurred.
- d. Although not discussed at the meeting, it should be noted that all of the data base (Group and Nongroup) can be used for this phase of the study, which is confined to the surviving injured. The restriction to use of group data only applies when studies involve injured versus uninjured information, or mortality percentages.

2.3 RESTRICTED DATA BASE.

Reduced data bases have been created and verified, and are included as Tables 9 and 10. Inspection of the data base has revealed some differences between coding items in the case histories. Resolution of these differences has been made, based on past experience and a knowledge of priorities that were established during the coding process. Areas that apply to this study are described below.

a. Date and cause of death. Any unknown death date (989898) is not included. In most cases, this date was coded to indicate death on or very soon after the date of burst. In addition, cases having a death date within 90 days of burst are not included if the coding shows death due to natural causes. As this phase is considering the surviving injured, it cannot be said that they would have survived 90 days if the natural complications had not existed. Less than 50 case histories fall in this category.

b. Coding of injuries by severity (114-116)* and identification of burn severity (90-91), as well as mechanical severity (84). In some cases an

*Numbers in parenthesis are data item numbers.

Table 8. Phase one analysis study approach.

Utilizing the Japanese casualty data base examine radiation symptoms for the surviving injured as follows.

I. OUTSIDE UNSHIELDED EXPOSURE (HIROSHIMA ONLY)

A. Burns

1. Examine cases with burns only, exposed to less than 25 rad calculated, Free In Air.
2. Determine percent of burns only cases exhibiting each of the 10 radiation symptoms, as the data allow.
3. Show as a function of calculated thermal exposure (cal/cm^2).
4. Examine for moderate and severe burn cases.
5. Repeat Steps 1-4 for combinations of burns plus mechanical injury. Show as percent of the cases with burns plus mechanical (moderate and severe).
6. Repeat Steps 2-4 for burns extended to higher levels of radiation exposure, if data permits.

II. WOOD FRAME AND OUTSIDE SHIELDED (BY WOOD FRAME) CASES (BOTH CITIES)

A. Radiation only. Completed in Ref 1.

B. Blast Only Injuries

1. Examine cases with less than 25 rad exposure at body surface, using the nine parameter model to determine attenuation.
2. Limit to burns less than moderate.
3. Determine percent of cases with above defined injuries that exhibit the radiation symptoms, as data allow.
4. Show incidence of symptoms vs. calculated overpressure (psi).
5. Examine for moderate and severe blast injuries.

C. Blast plus Burn Injuries

1. Repeat B, above, for blast plus moderate and severe burns, showing severity combinations separately, as the data allow. Some collapse of categories may be required.

Table 8. Phase one analysis study approach (continued).

D. Blast plus Radiation

1. Repeat B, without the 25 rad limit for all blast injury cases, as the data allow.
2. In addition to showing incidence of radiation symptoms as a function of psi, show incidence as a function of radiation exposure at the body surface (rad).
3. Run separately for moderate and severe blast.

E. Burns plus Radiation

1. Repeat D, above, using burns in place of blast, as the data permit.
2. Show incidence only as a function of radiation exposure.

F. Blast plus Burns plus Radiation

1. Show percent of symptoms vs. radiation dose at the body surface, for cases in each exposure interval.
2. Run separately for moderate and severe combinations as a function of radiation exposure of the body surface, as data permit.

Table 9. Restricted data base--outside unshielded cases.

Number	Case History Item*	Description
1	1	DW Master File Number
2	2	City Code
3	3	East/West Coordinate Location
4	4	North/South Coordinate Location
5	5	Coded Ground Range from Hypocenter
6	6	Location at Time of Burst (ATB)
7	24	Physical Position of Subject
8	37	Data Source
9	38	Data Source File Number
10	48	Medical Condition Prior to Burst
11	49	Medical Condition Immediately After Burst (IAB)
12	71	Interview Date
13	72	Interview Reliability
14	74	Sex
15	75	Age (ATB)
16	79	Prime Cause of Mechanical Injuries
17	80	Cuts, Lacerations, Punctures
18	81	Contusions, Abrasions
19	82	Fractured Bones
20	83	Other Blast Effects
21	84	Severity of Mechanical Injuries
22	85	Head Covering Worn
23	86	Clothing Worn
24	87	Burns Relative to Clothing
25	88	Type of Burns
26	89	Area of Burns
27	90	Percent Area Burned
28	91	Severity of Burns
29	92	Days to Vomiting Onset
30	93	Duration of Vomiting
31	94	Days to Diarrhea Onset
32	95	Duration of Diarrhea
33	96	Days to Bloody Diarrhea Onset
34	97	Malaise or Anorexia Present

*Item number in case history record.

Table 9. Restricted data base--outside unshielded cases (continued).

<u>Number</u>	<u>Case History Item*</u>	<u>Description</u>
35	98	Days to Onset of Gingivitis or Pharyngitis
36	99	Duration of Gingivitis or Pharyngitis
37	100	Days to Onset of Necrotic Ging. or Phary.
38	101	Days to Onset of Purpura or Petechiae
39	102	Duration of Purpura or Petechiae
40	104	Percent of Scalp Epilation
41	105	Days to Onset of Scalp Epilation
42	107	Presence of Sweating and Skin Pigmentation
43	108	Reproductive System Abnormalities
44	109	Fever Onset
45	110	Eye Injuries
46	111	Date of Hospital Admittance
47	112	Date of Hospital Discharge
48	113	Place of Examination
49	114	Most Severe Injury
50	115	Second Most Severe Injury
51	116	Third Most Severe Injury
52	117	Major Complications
53	118	Other Complications
54	119	Type of Patient Treatment
55	120	Lowest Red Blood Cell Count
56	121	Lowest Hemoglobin
57	122	Lowest White Blood Cell Count
58	123	Date of First Treatment
59	124	Date Patient Last Seen
60	127	Additional Items of Interest (Oak Ridge)
61	128	Additional Items of Interest (AFIP)
62	-	Record Source (AFIP, Group, etc.)
63	-	Burn Severity Index
64	-	Mechanical Injury Severity Index
65	-	Radiation Severity Index
66	-	Calculated Ground Range to Hypocenter
67	-	Calculated (free air) Gamma

*Item number in case history record.

Table 9. Restricted data base--outside unshielded cases (continued).

<u>Number</u>	<u>Case History Item*</u>	<u>Description</u>
68	-	Calculated (free air) Neutron
69	-	Calculated Thermal Radiation Exposure
70	103	Other Hemorrhages

*Item number in case history record.

Table 10. Restricted data base--wood frame shielding.

Number	Case History Item*	Description
1	1	DW Master File Number
2	2	City Code
3	3	East/West Coordinate Location
4	4	North/South Coordinate Location
5	5	Coded Ground Range from Hypocenter
6	6	Location at Time of Burst (ATB)
7	7	Locator Number
8	8	Type of Building Construction
9	10	Number of Floors above Ground
10	19	Subject Location (ATB)
11	20	Floor Subject Located on (ATB)
12	22	Subject Location on Floor
13	23	Subject Location Relative to Openings
14	24	Physical Position of Subject
15	25	No. of Floors (or ceilings) shielding subject
16	26	Shielding Material of #25
17	27	Number of Walls Shielding Subject
18	28	Shielding Material of #27
19	29	Other Features Shielding Subject
20	36	Material Shielding Subject in Open
21	37	Data Source
22	38	Data Source File Number
23	48	Medical Condition Prior to Burst
24	49	Medical Condition Immediately After Burst (IAB)
25	71	Interview Date
26	72	Interview Reliability
27	73	Date of Birth
28	74	Sex
29	75	Age (ATB)
30	79	Prime Cause of Mechanical Injuries
31	80	Cuts, Lacerations, Punctures
32	81	Contusions, Abrasions
33	82	Fractured Bones

*Item number in case history record.

Table 10. Restricted data base--wood frame shielding (continued).

Number	Case History Item*	Description
34	83	Other Blast Effects
35	84	Severity of Mechanical Injuries
36	90	Percent Area Burned
37	91	Severity of Burns
38	92	Days to Vomiting Onset
39	93	Duration of Vomiting
40	94	Days to Diarrhea Onset
41	95	Duration of Diarrhea
42	96	Days to Bloody Diarrhea Onset
43	97	Malaise or Anorexia Present
44	98	Days to Onset of Gingivitis or Pharyngitis
45	99	Duration of Gingivitis or Pharyngitis
46	100	Days to Onset of Necrotic Ging. or Phary.
47	101	Days to Onset of Purpura or Petechiae
48	102	Duration of Purpura or Petechiae
49	104	Percent of Scalp Epilation
50	105	Days to Onset of Scalp Epilation
51	108	Reproductive System Abnormalities
52	109	Fever Onset
53	111	Date of Hospital Admittance
54	112	Date of Hospital Discharge
55	113	Place of Examination
56	114	Most Severe Injury
57	115	Second Most Severe Injury
58	116	Third Most Severe Injury
59	117	Major Complications
60	118	Other Complications
61	119	Type of Patient Treatment
62	120	Lowest Red Blood Cell Count
63	121	Lowest Hemoglobin
64	122	Lowest White Blood Cell Count
65	123	Date of First Treatment
66	124	Date Patient Last Seen
67	125	Blast Data Available

*Item number in case history record.

Table 10. Restricted data base--wood frame shielding (continued).

<u>Number</u>	<u>Case History Item*</u>	<u>Description</u>
68	127	Additional Items of Interest (Oak Ridge)
69	128	Additional Items of Interest (AFIP)
70	-	Record Source (AFIP, Group, etc.)
71	-	Burn Severity Index
72	-	Mechanical Injury Severity Index
73	-	Radiation Severity Index
74	-	Calculated Ground Range to Hypocenter
75	-	Calculated (free air) Gamma
76	-	Calculated (free air) Neutron
77	-	Calculated 9-parameter Gamma Attenuation
78	-	Calculated 9-parameter Neutron Attenuation
79	-	Calculated Overpressure
80	-	Shielding Type (1=inside, 2=outside)
81	102	Other Hemorrhages

*Item number in case history record.

injury is indicated in one data item and not the other. For example: (114-116) may show burn injury, while (90-91) does not.

The general approach is to include the injury if either coding group indicates that one existed. By far the majority of cases show consistency between the two coding groups. For those cases where conflict exists, the more detailed information of (90-91) and (84) were used. In those few cases when degree of burn is shown, but burn area is missing and (114-116) cannot resolve the severity, first and second degree burns are included as moderate, while third degree burns are listed as severe. Cases showing burns or mechanical injury with the severity unknown are not included.

c. Cases were accepted as shielded by wood-frame when specific identification of wood building material was indicated. Cases were also accepted if the residential building material was unknown, since a preponderance of wood was used in construction. Cases that indicated an unknown location were not included; neither were those indicating shielding by another person or non-wood structures.

Counts of available data are listed in Table 11. Some small reduction in the numbers can be expected when the breakdown by thermal or overpressure level is made.

2.4 THERMAL RADIATION AND BLAST ENVIRONMENTS.

Since Kaman Sciences Corporation is responsible for revising and/or reviewing the thermal and blast sections of the revised edition of DNA EM-1, they recalculated prompt thermal radiation (cal/cm^2 vs. range) and blast (overpressures vs. range) for the Hiroshima and Nagasaki burst conditions. Of course, the thermal and blast predicted for these Japanese events will be revised when the accepted burst conditions have been refined.

Review of these data shows little difference from thermal curves presented in DC-FR-1054, and used in our previous studies. Virtually no difference exists at close range. At long ranges (~24000 ft), Kaman predicts thermal values up to 13 percent higher. Values from the Hillendahl "Recipe Code" generally lie between the old DW values and the new Kaman values. Thermal data for Nagasaki will not be used in this study.

The revised data will not be incorporated at this time, however, since a consensus on weapon yield has not yet been obtained. Thermal and overpressure data will be changed once the yield questions have been resolved.

Table 11. Case histories available for this study.

HIROSHIMA--OUTSIDE UNSHIELDED

<u>Burns</u>	<u>Mechanical Injuries</u>			<u>Total</u>
	<u>None</u>	<u>Moderate</u>	<u>Severe</u>	
None	396	125	13	534
Moderate	1394	283	13	1690
Severe	1007	130	9	1146
Total	2797	538	35	3370

HIROSHIMA--WOOD FRAME SHIELDING

<u>Mechanical</u>	<u>Burns</u>			<u>Total</u>
	<u>None</u>	<u>Moderate</u>	<u>Severe</u>	
None	5926	691	117	6734
Moderate	6853	571	77	7501
Severe	606	62	16	684
Total	13385	1324	210	14919

NAGASAKI--WOOD FRAME SHIELDING

<u>Mechanical</u>	<u>Burns</u>			<u>Total</u>
	<u>None</u>	<u>Moderate</u>	<u>Severe</u>	
None	2534	300	110	2944
Moderate	1632	186	22	1840
Severe	228	28	10	266
Total	4394	514	142	5050

2.5 INJURY SYMPTOM DATA.

The summary counts of the injury symptom data available are shown in Appendix 2. The breakdown includes light burns and light mechanical injury categories. These were included to verify that the data base does not contain sufficient information to allow separate categories for them. Because of considerations in the data availability and coding, the light injury category will be included with the moderate injuries.

Counts of the cases with specific symptoms are shown for each of the shielding categories. For each injury category, the upper value of the pair indicates the number of cases that recorded the symptom indicated. The lower number represents the number of cases with symptom data available for each burn and mechanical injury. Some data are shown to ascertain whether sufficient information exists to examine synergistic effects. At this time no conclusions can be reached.

The coding key for the columns is:

VOMIT-ONSET	Onset and presence of vomiting
VOMIT-DUR	Duration of vomiting
DIARRHEA-ONSET	Onset and presence of diarrhea
DIARRHEA-DUR	Duration of diarrhea
BDIA-ONSET	Presence and onset of bloody diarrhea
MALS-ANOR	Presence of malaise and anorexia
GING & PHAR-DUR	Duration of gingivitis/pharyngitis
NG & P-ONSET	Presence and onset of necrotic gingivitis/pharyngitis
PURP/PET-ONSET	Presence and onset of purpura or petechiae
PURP/PET-DUR	Duration of purpura or petechiae
SCALP EPIL-PRCNT	Percent of scalp epilation
SCALP EPIL-ONSET	Presence and onset of scalp epilation
REPRO ABNOR	Abnormalities of reproductive system
FEVER ONSET	Onset and presence of fever
MAJOR COMPL	Major complications
RBC LWST	Data available on lowest red blood cell count
HEMO LWST	Data available on lowest hemoglobin, percent
WBC-LWST	Data available on lowest white blood cell count
HOSP-DISC	Hospital discharge data available

2.6 BURN AND MECHANICAL INJURIES RADIATION SYMPTOMS.

Appendix 3 contains the first set of data showing symptoms versus burn and mechanical injuries. The minimal doses were calculated using T65 information. The data present the percent of cases exhibiting various radiation symptoms as a function of calculated thermal exposure. Two cases are presented for Hiroshima outside unshielded: a low radiation (calculated less than 25 rads) and all radiation exposure cases. For each of the two cases, combinations of burn and mechanical injuries were developed. The combinations include none, moderate and severe for both burns and mechanical injuries.

It is important to remember that the thermal exposure is calculated using the range from the hypocenter for each case history. Use of the revised DS 86 weapon yields will alter the relationships between radiation, and thermal and overpressure exposure levels.

SECTION 3
LIST OF REFERENCES

1. Summers, D. L. and W. J. Slosarik, Biological Effects of Initial-Nuclear Radiation Based Upon the Japanese Data, DNA 5428F, Dikewood, DNA001-79-C-0024, August 29, 1980.
2. Effects of the Atomic Bomb on Nagasaki, Japan, U. S. Strategic Bombing Survey (USSBS) report, June 1947.
- 3. Medical Effects of Atomic Bombs, NP-3041 (July 6, 1951).
4. Blueprint at ORNL.
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6. Letter from R. L. Stohler, Dikewood Corporation, July 15, 1986.

APPENDIX A

HIROSHIMA DATA FOR WOOD FRAME AND OUTSIDE UNSHIELDED

(All thermal and pressure calculations made
using old weapon yield parameters)

SLP 13, 1923
LJIAL REC: 1493

1
2
3
4
5
6
7

MORTALLY INJURED

KILLED IMMEDIATELY

MECHANICAL										MECHANICAL										MECHANICAL															
NONE					TOTAL					NONE					TOTAL					NONE					TOTAL										
MD	BN	N	N	N	MN	MD	SV	TOTAL	MD	BN	N	N	N	MN	MD	SV	TOTAL	MD	BN	N	N	N	MN	MD	SV	TOTAL									
102	354	278	1	14	0	0	0	407	102	354	278	1	14	0	0	0	407	102	354	278	1	14	0	0	0	407									
7	1	5	1	14	0	0	0	23	7	1	5	1	14	0	0	0	23	7	1	5	1	14	0	0	0	23									
203	2	181	18	451	0	0	0	72	203	2	181	18	451	0	0	0	72	203	2	181	18	451	0	0	0	72									
33	2	27	5	72	14	0	2	0	33	2	27	5	72	14	0	2	0	16	33	2	27	5	72	14	0	16									
N	TL	385	302	4571	N	TL	37	0	102	9	148	N	TL	357	0	25	11	393	N	TL	357	0	25	11	393										
MN	N	242	16	369	MN	N	24	0	12	2	38	MN	N	0	0	0	0	0	MN	N	0	0	0	0	0										
3	0	0	0	0	MN	MN	0	0	0	0	0	MN	MN	0	0	0	0	0	MN	MN	0	0	0	0	0										
11	0	16	3	30	MN	MD	2	0	1	0	3	MN	MD	0	0	0	3	0	MN	MD	0	0	0	0	0										
3	1	2	2	8	MN	SV	1	0	0	0	1	MN	SV	0	0	0	1	0	MN	SV	0	0	0	0	0										
122	4	260	21	407	MN	TL	27	0	13	2	42	MN	TL	0	0	0	0	0	MN	TL	0	0	0	0	0										
130	3	448	38	675	MD	N	38	0	33	1	72	MD	N	0	0	0	0	0	MD	N	0	0	0	0	0										
1	0	1	0	2	MD	MN	0	0	0	0	0	MD	MN	0	0	0	0	0	MD	MN	0	0	0	0	0										
30	0	77	5	112	MD	MD	4	0	1	0	5	MD	MD	0	0	0	5	0	MD	MD	0	0	0	0	0										
8	0	10	2	20	MD	SV	1	0	1	0	2	MD	SV	0	0	0	2	0	MD	SV	0	0	0	0	0										
225	3	536	45	809	MD	TL	43	0	35	1	79	MD	TL	0	0	0	0	0	MD	TL	0	0	0	0	0										
143	6	366	63	578	SV	N	30	0	25	9	64	SV	N	0	0	0	0	0	SV	N	0	0	0	0	0										
0	0	1	0	1	SV	MN	0	0	0	0	0	SV	MN	0	0	0	0	0	SV	MN	0	0	0	0	0										
31	0	51	3	35	SV	MD	2	0	1	0	3	SV	MD	0	0	0	3	0	SV	MD	0	0	0	0	0										
4	0	3	1	8	SV	SV	1	0	0	0	1	SV	SV	0	0	0	1	0	SV	SV	0	0	0	0	0										
178	6	421	67	672	SV	TL	33	0	26	9	68	SV	TL	0	0	0	0	0	SV	TL	0	0	0	0	0										
ALL RADIATION MECHANICAL										ALL RADIATION MECHANICAL										ALL RADIATION MECHANICAL															
NONE					TOTAL					NONE					TOTAL					NONE					TOTAL										
114	4700	345	5646	114	4700	345	5646	114	4700	345	5646	114	4700	345	5646	114	4700	345	5646	114	4700	345	5646	114	4700	345	5646								
1	7	1	17	1	7	1	17	1	7	1	17	1	7	1	17	1	7	1	17	1	7	1	17	1	7	1	17								
322	2	325	29	638	32	2	325	29	638	32	2	325	29	638	32	2	325	29	638	32	2	325	29	638	32	2	325								
53	3	42	10	138	53	3	42	10	138	53	3	42	10	138	53	3	42	10	138	53	3	42	10	138	53	3	42	10	138						
330	120	5074	435	6459	330	120	5074	435	6459	330	120	5074	435	6459	330	120	5074	435	6459	330	120	5074	435	6459	330	120	5074	435	6459						
ALL BURNS										ALL BURNS										ALL BURNS															
NONE					TOTAL					NONE					TOTAL					NONE					TOTAL										
107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571				
122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	
225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	
178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	
ALL BURNS										ALL BURNS										ALL BURNS															
NONE					TOTAL					NONE					TOTAL					NONE					TOTAL										
107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571
122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	
225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	
178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	
ALL BURNS										ALL BURNS										ALL BURNS															
NONE					TOTAL					NONE					TOTAL					NONE					TOTAL										
107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571
122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	
225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	
178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	
ALL BURNS										ALL BURNS										ALL BURNS															
NONE					TOTAL					NONE					TOTAL					NONE					TOTAL										
107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571
122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	
225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	
178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	
ALL BURNS										ALL BURNS										ALL BURNS															
NONE					TOTAL					NONE					TOTAL					NONE					TOTAL										
107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571
122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	
225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	
178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	
ALL BURNS										ALL BURNS										ALL BURNS															
NONE					TOTAL					NONE					TOTAL					NONE					TOTAL										
107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571
122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	122	4	260	21	407	
225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	225	3	536	45	809	
178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	178	6	421	67	672	
ALL BURNS										ALL BURNS										ALL BURNS															
NONE					TOTAL					NONE					TOTAL					NONE					TOTAL										
107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	4571	107	3357	322	

SEP 22, 1983		WOOD FRAME		HIRUSHIMA		GROUPS PERCENT INJURY-- MECH		NO RAO		NO BURNS	
		LIGHT MECH		HDD MECH							
PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT
0.5- 1.0	4	93	4.3	0.5- 1.0	14	93	15.1	0.5- 1.0	0	93	0.0
1.0- 1.5	13	184	7.1	1.0- 1.5	51	184	27.7	1.0- 1.5	3	184	1.6
1.5- 2.0	5	125	6.4	1.5- 2.0	42	125	33.6	1.5- 2.0	2	125	1.6
2.0- 2.5	15	221	7.2	2.0- 2.5	80	221	36.2	2.0- 2.5	17	221	7.7
2.5- 3.0	7	208	3.4	2.5- 3.0	77	208	37.0	2.5- 3.0	18	208	8.7
3.0- 3.5	13	552	2.4	3.0- 3.5	192	552	34.8	3.0- 3.5	45	552	8.2
3.5- 4.0	12	733	1.6	3.5- 4.0	258	733	35.0	3.5- 4.0	15	733	2.0
4.0- 4.5	8	820	1.0	4.0- 4.5	346	820	42.2	4.0- 4.5	30	820	3.7
4.5- 5.0	12	857	1.4	4.5- 5.0	334	857	39.0	4.5- 5.0	23	857	2.7
5.0- 5.5	1	962	0.1	5.0- 5.5	404	962	42.0	5.0- 5.5	29	962	3.0
5.5- 6.0	1	878	0.1	5.5- 6.0	422	878	43.1	5.5- 6.0	11	878	1.3
6.0- 7.0	5	1670	0.3	6.0- 7.0	725	1670	43.4	6.0- 7.0	37	1670	2.2
7.0- 8.0	1	1077	0.1	7.0- 8.0	457	1077	37.8	7.0- 8.0	15	1077	1.4
8.0- 10.0	0	927	0.0	8.0- 10.0	230	927	24.8	8.0- 10.0	21	927	2.3
10.0- 12.0	1	561	0.2	10.0- 12.0	53	561	10.6	10.0- 12.0	7	561	1.4
12.0- 13.0	0	122	0.0	12.0- 13.0	3	122	2.5	12.0- 13.0	2	122	1.6
13.0- 14.0	0	109	0.0	13.0- 14.0	4	109	3.7	13.0- 14.0	2	109	1.8
14.0- 15.0	0	7	0.0	14.0- 15.0	2	7	28.6	14.0- 15.0	1	7	14.3
15.0- 18.0	0	0	0.0	15.0- 18.0	0	0	0.0	15.0- 18.0	0	0	0.0
18.0- 20.0	0	0	0.0	18.0- 20.0	0	0	0.0	18.0- 20.0	0	0	0.0
20.0- 25.0	0	6	0.0	20.0- 25.0	0	6	0.0	20.0- 25.0	0	6	0.0
25.0- 30.0	0	0	0.0	25.0- 30.0	0	0	0.0	25.0- 30.0	0	0	0.0
		102				3644				278	

SEP 22, 1983

ADDU FRAME

HIKOSHIMA

GROUPS PERCENT INJURY-- MECH

LIGHT RAD

NO BURNS

LIGHT MECH

MDD MECH

SEVERE MECH

PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT
0.0- 1.0	4	93	4.3	0.5- 1.0	14	93	15.1	0.5- 1.0	0	93	0.0
1.0- 1.5	13	184	7.1	1.0- 1.5	51	184	27.7	1.0- 1.5	3	184	1.6
1.5- 2.0	3	125	6.4	1.5- 2.0	42	125	33.6	1.5- 2.0	2	125	1.6
2.0- 2.5	16	221	7.2	2.0- 2.5	80	221	36.2	2.0- 2.5	17	221	7.7
2.5- 3.0	7	203	3.4	2.5- 3.0	77	203	37.0	2.5- 3.0	18	203	8.7
3.0- 3.5	14	522	2.5	3.0- 3.5	199	522	36.1	3.0- 3.5	45	522	8.2
3.5- 4.0	12	738	1.6	3.5- 4.0	277	738	37.5	3.5- 4.0	17	738	2.3
4.0- 4.5	3	320	1.0	4.0- 4.5	355	320	43.3	4.0- 4.5	31	320	3.8
4.5- 5.0	12	857	1.4	4.5- 5.0	340	857	39.7	4.5- 5.0	23	857	2.7
5.0- 5.5	1	962	0.1	5.0- 5.5	423	962	44.0	5.0- 5.5	30	962	3.1
5.5- 6.0	1	878	0.1	5.5- 6.0	436	878	49.7	5.5- 6.0	12	878	1.4
6.0- 7.0	6	1670	0.4	6.0- 7.0	775	1670	46.4	6.0- 7.0	40	1670	2.4
7.0- 8.0	1	1077	0.1	7.0- 8.0	451	1077	41.9	7.0- 8.0	17	1077	1.6
8.0- 10.0	0	927	0.0	8.0- 10.0	236	927	30.9	8.0- 10.0	22	927	2.4
10.0- 12.0	2	501	0.4	10.0- 12.0	67	501	13.4	10.0- 12.0	8	501	1.6
12.0- 13.0	0	122	0.0	12.0- 13.0	5	122	4.1	12.0- 13.0	3	122	2.5
13.0- 14.0	0	109	0.0	13.0- 14.0	6	109	5.5	13.0- 14.0	4	109	3.7
14.0- 16.0	0	7	0.0	14.0- 16.0	2	7	23.6	14.0- 16.0	1	7	14.3
15.0- 18.0	0	0	****	15.0- 18.0	0	0	****	15.0- 18.0	0	0	****
18.0- 20.0	0	0	****	18.0- 20.0	0	0	****	18.0- 20.0	0	0	****
20.0- 25.0	0	6	0.0	20.0- 25.0	0	6	0.0	20.0- 25.0	1	6	16.7
25.0- 30.0	0	0	****	25.0- 30.0	0	0	****	25.0- 30.0	0	0	****

105

3886

294

SEP 22, 1963		MOD FRAME		HIROSHIMA		GROUPS PERCENT INJURY-- MECH		MOD RAD		NO BURNS	
		LIGHT MECH				MOD MECH				SEVERE MECH	
PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT
0.5- 1.0	4	93	4.3	0.5- 1.0	14	93	15.1	0.5- 1.0	3	93	0.0
1.0- 1.5	13	184	7.1	1.0- 1.5	51	184	27.7	1.0- 1.5	3	184	1.6
1.5- 2.0	8	125	6.4	1.5- 2.0	42	125	33.6	1.5- 2.0	2	125	1.6
2.0- 2.5	16	221	7.2	2.0- 2.5	80	221	36.2	2.0- 2.5	17	221	7.7
2.5- 3.0	7	203	3.4	2.5- 3.0	77	203	37.0	2.5- 3.0	18	203	8.7
3.0- 3.5	13	252	2.4	3.0- 3.5	200	252	38.2	3.0- 3.5	47	252	8.5
3.5- 4.0	12	738	1.6	3.5- 4.0	278	738	37.7	3.5- 4.0	17	738	2.3
4.0- 4.5	3	320	1.0	4.0- 4.5	352	320	44.5	4.0- 4.5	32	320	3.9
4.5- 5.0	12	357	1.4	4.5- 5.0	356	357	41.5	4.5- 5.0	23	357	2.7
5.0- 5.5	1	962	0.1	5.0- 5.5	423	962	44.5	5.0- 5.5	30	962	3.1
5.5- 6.0	1	873	0.1	5.5- 6.0	445	873	50.7	5.5- 6.0	14	873	1.6
6.0- 7.0	5	1670	0.3	6.0- 7.0	779	1670	46.6	6.0- 7.0	39	1670	2.3
7.0- 8.0	2	1377	0.2	7.0- 8.0	469	1377	43.5	7.0- 8.0	20	1377	1.9
8.0- 10.0	1	927	0.1	8.0- 10.0	337	927	36.4	8.0- 10.0	27	927	2.9
10.0- 12.0	1	501	0.2	10.0- 12.0	127	501	25.3	10.0- 12.0	13	501	2.6
12.0- 13.0	1	122	0.6	12.0- 13.0	24	122	17.7	12.0- 13.0	8	122	6.6
13.0- 14.0	3	109	0.3	13.0- 14.0	18	109	16.5	13.0- 14.0	5	109	4.6
14.0- 16.0	3	7	0.0	14.0- 16.0	2	7	23.6	14.0- 16.0	1	7	14.3
16.0- 18.0	0	0	*****	16.0- 18.0	0	0	*****	16.0- 18.0	0	0	*****
18.0- 20.0	0	0	*****	18.0- 20.0	0	0	*****	18.0- 20.0	0	0	*****
20.0- 25.0	0	0	0.0	20.0- 25.0	0	6	0.0	20.0- 25.0	0	6	0.0
25.0- 30.0	0	0	*****	25.0- 30.0	0	0	*****	25.0- 30.0	0	0	*****
	105				4092				316		

WOULD FRAME

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LIGHT BURNS

67

SEP 22, 1933

LIGHT BURNS

GROUPS PERCENT INJURY-- MECH

HIROSHIMA

WOOD FRAME

WOOD FRAME

SEP 22, 1933

LIGHT MECH				WOOD MECH				SEVERE MECH			
PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT
0.5- 1.0	4	93	4.3	0.5- 1.0	14	93	15.1	0.5- 1.0	0	93	0.0
1.0- 1.5	13	184	7.1	1.0- 1.5	51	184	27.7	1.0- 1.5	3	184	1.6
1.5- 2.0	8	125	6.4	1.5- 2.0	42	125	33.6	1.5- 2.0	2	125	1.6
2.0- 2.5	16	221	7.2	2.0- 2.5	82	221	37.1	2.0- 2.5	17	221	7.7
2.5- 3.0	7	208	3.4	2.5- 3.0	77	208	37.0	2.5- 3.0	18	208	8.7
3.0- 3.5	14	552	2.5	3.0- 3.5	199	552	36.1	3.0- 3.5	46	552	8.3
3.5- 4.0	13	738	1.8	3.5- 4.0	278	738	37.7	3.5- 4.0	17	738	2.3
4.0- 4.5	8	820	1.0	4.0- 4.5	355	820	43.3	4.0- 4.5	31	820	3.8
4.5- 5.0	12	857	1.4	4.5- 5.0	340	857	39.7	4.5- 5.0	23	857	2.7
5.0- 5.5	1	962	0.1	5.0- 5.5	423	962	44.0	5.0- 5.5	33	962	3.1
5.5- 6.0	1	878	0.1	5.5- 6.0	437	878	49.8	5.5- 6.0	12	878	1.4
6.0- 7.0	6	1670	0.4	6.0- 7.0	775	1670	46.4	6.0- 7.0	40	1670	2.4
7.0- 8.0	1	1077	0.1	7.0- 8.0	451	1077	41.9	7.0- 8.0	17	1077	1.6
8.0- 10.0	3	927	0.3	8.0- 10.0	286	927	30.9	8.0- 10.0	22	927	2.4
10.0- 12.0	2	501	0.4	10.0- 12.0	63	501	13.0	10.0- 12.0	3	501	1.6
12.0- 14.0	3	122	0.0	12.0- 14.0	5	122	4.1	12.0- 14.0	3	122	2.5
14.0- 16.0	3	109	0.0	14.0- 16.0	6	109	5.5	14.0- 16.0	4	109	3.7
16.0- 18.0	3	7	0.0	16.0- 18.0	2	7	28.6	16.0- 18.0	1	7	14.3
18.0- 20.0	3	0	0.0	18.0- 20.0	0	0	0.0	18.0- 20.0	0	0	0.0
20.0- 25.0	3	0	0.0	20.0- 25.0	0	0	0.0	20.0- 25.0	0	0	0.0
25.0- 30.0	3	0	0.0	25.0- 30.0	0	0	0.0	25.0- 30.0	0	0	0.0

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3891

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SEP 22, 1963		WOOD FRAME		HIKOSHIMA		GROUPS PERCENT INJURY-- MECH		MOD RAD		LIGHT BURNS	
		LIGHT MECH				MOD MECH				SEVERE MECH	
PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT
0.5-	4	93	4.3	0.5-	14	93	15.1	0.5-	0	93	0.0
1.0-	13	184	7.1	1.0-	51	184	27.7	1.0-	3	184	1.6
1.5-	8	125	6.4	1.5-	42	125	33.6	1.5-	2	125	1.6
2.0-	15	221	7.2	2.0-	82	221	37.1	2.0-	17	221	7.7
2.5-	7	208	3.4	2.5-	77	208	37.0	2.5-	18	208	8.7
3.0-	13	552	2.4	3.0-	200	552	36.2	3.0-	48	552	8.7
3.5-	13	738	1.8	3.5-	279	738	37.8	3.5-	17	738	2.3
4.0-	8	820	1.0	4.0-	365	820	44.5	4.0-	32	820	3.9
4.5-	12	857	1.4	4.5-	356	857	41.5	4.5-	23	857	2.7
5.0-	1	962	0.1	5.0-	428	962	44.5	5.0-	30	962	3.1
5.5-	1	878	0.1	5.5-	446	878	50.8	5.5-	14	878	1.6
6.0-	5	1670	0.3	6.0-	779	1670	46.6	6.0-	39	1670	2.3
7.0-	2	1077	0.2	7.0-	470	1077	43.6	7.0-	20	1077	1.9
8.0-	1	927	0.1	8.0-	337	927	36.4	8.0-	27	927	2.9
9.0-	1	501	0.2	9.0-	128	501	25.5	9.0-	13	501	2.6
10.0-	1	122	0.8	10.0-	24	122	19.7	10.0-	8	122	6.6
11.0-	0	109	0.0	11.0-	18	109	16.5	11.0-	5	109	4.6
12.0-	0	7	0.0	12.0-	2	7	28.6	12.0-	1	7	14.3
13.0-	0	0	0.0	13.0-	0	0	0.0	13.0-	0	0	0.0
14.0-	0	0	0.0	14.0-	0	0	0.0	14.0-	0	0	0.0
15.0-	0	0	0.0	15.0-	0	0	0.0	15.0-	0	0	0.0
16.0-	0	0	0.0	16.0-	0	0	0.0	16.0-	0	0	0.0
17.0-	0	0	0.0	17.0-	0	0	0.0	17.0-	0	0	0.0
18.0-	0	0	0.0	18.0-	0	0	0.0	18.0-	0	0	0.0
19.0-	0	0	0.0	19.0-	0	0	0.0	19.0-	0	0	0.0
20.0-	0	0	0.0	20.0-	0	0	0.0	20.0-	0	0	0.0
21.0-	0	0	0.0	21.0-	0	0	0.0	21.0-	0	0	0.0
22.0-	0	0	0.0	22.0-	0	0	0.0	22.0-	0	0	0.0
23.0-	0	0	0.0	23.0-	0	0	0.0	23.0-	0	0	0.0
24.0-	0	0	0.0	24.0-	0	0	0.0	24.0-	0	0	0.0
25.0-	0	0	0.0	25.0-	0	0	0.0	25.0-	0	0	0.0
26.0-	0	0	0.0	26.0-	0	0	0.0	26.0-	0	0	0.0
27.0-	0	0	0.0	27.0-	0	0	0.0	27.0-	0	0	0.0
28.0-	0	0	0.0	28.0-	0	0	0.0	28.0-	0	0	0.0
29.0-	0	0	0.0	29.0-	0	0	0.0	29.0-	0	0	0.0
30.0-	0	0	0.0	30.0-	0	0	0.0	30.0-	0	0	0.0
31.0-	0	0	0.0	31.0-	0	0	0.0	31.0-	0	0	0.0
32.0-	0	0	0.0	32.0-	0	0	0.0	32.0-	0	0	0.0
33.0-	0	0	0.0	33.0-	0	0	0.0	33.0-	0	0	0.0
34.0-	0	0	0.0	34.0-	0	0	0.0	34.0-	0	0	0.0
35.0-	0	0	0.0	35.0-	0	0	0.0	35.0-	0	0	0.0
36.0-	0	0	0.0	36.0-	0	0	0.0	36.0-	0	0	0.0
37.0-	0	0	0.0	37.0-	0	0	0.0	37.0-	0	0	0.0
38.0-	0	0	0.0	38.0-	0	0	0.0	38.0-	0	0	0.0
39.0-	0	0	0.0	39.0-	0	0	0.0	39.0-	0	0	0.0
40.0-	0	0	0.0	40.0-	0	0	0.0	40.0-	0	0	0.0
41.0-	0	0	0.0	41.0-	0	0	0.0	41.0-	0	0	0.0
42.0-	0	0	0.0	42.0-	0	0	0.0	42.0-	0	0	0.0
43.0-	0	0	0.0	43.0-	0	0	0.0	43.0-	0	0	0.0
44.0-	0	0	0.0	44.0-	0	0	0.0	44.0-	0	0	0.0
45.0-	0	0	0.0	45.0-	0	0	0.0	45.0-	0	0	0.0
46.0-	0	0	0.0	46.0-	0	0	0.0	46.0-	0	0	0.0
47.0-	0	0	0.0	47.0-	0	0	0.0	47.0-	0	0	0.0
48.0-	0	0	0.0	48.0-	0	0	0.0	48.0-	0	0	0.0
49.0-	0	0	0.0	49.0-	0	0	0.0	49.0-	0	0	0.0
50.0-	0	0	0.0	50.0-	0	0	0.0	50.0-	0	0	0.0
51.0-	0	0	0.0	51.0-	0	0	0.0	51.0-	0	0	0.0
52.0-	0	0	0.0	52.0-	0	0	0.0	52.0-	0	0	0.0
53.0-	0	0	0.0	53.0-	0	0	0.0	53.0-	0	0	0.0
54.0-	0	0	0.0	54.0-	0	0	0.0	54.0-	0	0	0.0
55.0-	0	0	0.0	55.0-	0	0	0.0	55.0-	0	0	0.0
56.0-	0	0	0.0	56.0-	0	0	0.0	56.0-	0	0	0.0
57.0-	0	0	0.0	57.0-	0	0	0.0	57.0-	0	0	0.0
58.0-	0	0	0.0	58.0-	0	0	0.0	58.0-	0	0	0.0
59.0-	0	0	0.0	59.0-	0	0	0.0	59.0-	0	0	0.0
60.0-	0	0	0.0	60.0-	0	0	0.0	60.0-	0	0	0.0
61.0-	0	0	0.0	61.0-	0	0	0.0	61.0-	0	0	0.0
62.0-	0	0	0.0	62.0-	0	0	0.0	62.0-	0	0	0.0
63.0-	0	0	0.0	63.0-	0	0	0.0	63.0-	0	0	0.0
64.0-	0	0	0.0	64.0-	0	0	0.0	64.0-	0	0	0.0
65.0-	0	0	0.0	65.0-	0	0	0.0	65.0-	0	0	0.0
66.0-	0	0	0.0	66.0-	0	0	0.0	66.0-	0	0	0.0
67.0-	0	0	0.0	67.0-	0	0	0.0	67.0-	0	0	0.0
68.0-	0	0	0.0	68.0-	0	0	0.0	68.0-	0	0	0.0
69.0-	0	0	0.0	69.0-	0	0	0.0	69.0-	0	0	0.0
70.0-	0	0	0.0	70.0-	0	0	0.0	70.0-	0	0	0.0
71.0-	0	0	0.0	71.0-	0	0	0.0	71.0-	0	0	0.0
72.0-	0	0	0.0	72.0-	0	0	0.0	72.0-	0	0	0.0
73.0-	0	0	0.0	73.0-	0	0	0.0	73.0-	0	0	0.0
74.0-	0	0	0.0	74.0-	0	0	0.0	74.0-	0	0	0.0
75.0-	0	0	0.0	75.0-	0	0	0.0	75.0-	0	0	0.0
76.0-	0	0	0.0	76.0-	0	0	0.0	76.0-	0	0	0.0
77.0-	0	0	0.0	77.0-	0	0	0.0	77.0-	0	0	0.0
78.0-	0	0	0.0	78.0-	0	0	0.0	78.0-	0	0	0.0
79.0-	0	0	0.0	79.0-	0	0	0.0	79.0-	0	0	0.0
80.0-	0	0	0.0	80.0-	0	0	0.0	80.0-	0	0	0.0
81.0-	0	0	0.0	81.0-	0	0	0.0	81.0-	0	0	0.0
82.0-	0	0	0.0	82.0-	0	0	0.0	82.0-	0	0	0.0
83.0-	0	0	0.0	83.0-	0	0	0.0	83.0-	0	0	0.0
84.0-	0	0	0.0	84.0-	0	0	0.0	84.0-	0	0	0.0
85.0-	0	0	0.0	85.0-	0	0	0.0	85.0-	0	0	0.0
86.0-	0	0	0.0	86.0-	0	0	0.0	86.0-	0	0	0.0
87.0-	0	0	0.0	87.0-	0	0	0.0	87.0-	0	0	0.0
88.0-	0	0	0.0	88.0-	0	0	0.0	88.0-	0	0	0.0
89.0-	0	0	0.0	89.0-	0	0	0.0	89.0-	0	0	0.0
90.0-	0	0	0.0	90.0-	0	0	0.0	90.0-	0	0	0.0
91.0-	0	0	0.0	91.0-	0	0	0.0	91.0-	0	0	0.0
92.0-	0	0	0.0	92.0-	0	0	0.0	92.0-	0	0	0.0
93.0-	0	0	0.0	93.0-	0	0	0.0	93.0-	0	0	0.0
94.0-	0	0	0.0	94.0-	0	0	0.0	94.0-	0	0	0.0
95.0-	0	0	0.0	95.0-	0	0	0.0	95.0-	0	0	0.0
96.0-	0	0	0.0	96.0-	0	0	0.0	96.0-	0	0	0.0
97.0-	0	0	0.0	97.0-	0	0	0.0	97.0-	0	0	0.0
98.0-	0	0	0.0	98.0-	0	0	0.0	98.0-	0	0	0.0
99.0-	0	0	0.0	99.0-	0	0	0.0	99.0-	0	0	0.0
100.0-	0	0	0.0	100.0-	0	0	0.0	100.0-	0	0	0.0

SEP 22, 1933	WOOD FRAME			HIRAJISHIMA			GROUPS PERCENT INJURY-- MECH			SEVERE RAD			LIGHT BURNS		
	LIGHT MECH			MUD MECH			MUD MECH			SEVERE MECH					
	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL
0.5-	1.0	4	93	4.3	0.5-	1.0	14	93	15.1	0.5-	1.0	0	93	0	0.0
1.0-	1.5	13	184	7.1	1.0-	1.5	51	184	27.7	1.0-	1.5	3	184	3	1.6
1.5-	2.0	9	125	6.4	1.5-	2.0	42	125	33.6	1.5-	2.0	2	125	2	1.6
2.0-	2.5	16	221	7.2	2.0-	2.5	82	221	37.1	2.0-	2.5	17	221	17	7.7
2.5-	3.0	7	208	3.4	2.5-	3.0	77	208	37.0	2.5-	3.0	18	208	18	8.7
3.0-	3.5	13	552	2.4	3.0-	3.5	194	552	35.1	3.0-	3.5	47	552	47	8.5
3.5-	4.0	13	738	1.8	3.5-	4.0	255	738	35.9	3.5-	4.0	17	738	17	2.3
4.0-	4.5	6	820	1.0	4.0-	4.5	351	820	42.8	4.0-	4.5	30	820	30	3.7
4.5-	5.0	12	857	1.4	4.5-	5.0	335	857	39.1	4.5-	5.0	23	857	23	2.7
5.0-	5.5	1	962	0.1	5.0-	5.5	409	962	42.5	5.0-	5.5	23	962	23	3.0
5.5-	6.0	1	878	0.1	5.5-	6.0	433	878	49.3	5.5-	6.0	12	878	12	1.4
6.0-	7.0	5	1670	0.3	6.0-	7.0	740	1670	44.3	6.0-	7.0	43	1670	43	2.6
7.0-	8.0	1	1077	0.1	7.0-	8.0	432	1077	40.1	7.0-	8.0	23	1077	23	2.1
8.0-	10.0	1	927	0.1	8.0-	10.0	351	927	37.9	8.0-	10.0	30	927	30	3.2
10.0-	12.0	3	501	0.6	10.0-	12.0	163	501	32.5	10.0-	12.0	30	501	30	6.0
12.0-	13.0	1	122	0.3	12.0-	13.0	34	122	27.9	12.0-	13.0	10	122	10	8.2
13.0-	14.0	1	109	0.9	13.0-	14.0	37	109	33.9	13.0-	14.0	6	109	6	5.5
14.0-	16.0	1	7	14.3	14.0-	16.0	3	7	42.9	14.0-	16.0	2	7	2	28.6
16.0-	18.0	0	0	0.0	16.0-	18.0	0	0	0.0	16.0-	18.0	0	0	0	0.0
18.0-	20.0	0	0	0.0	18.0-	20.0	0	0	0.0	18.0-	20.0	0	0	0	0.0
20.0-	25.0	0	6	0.0	20.0-	25.0	3	6	50.0	20.0-	25.0	0	6	0	0.0
25.0-	30.0	0	0	0.0	25.0-	30.0	0	0	0.0	25.0-	30.0	0	0	0	0.0
			109				4016					342			

SLP 22, 1933		WOOD FRAME		HIRUSHIMA		GROUPS PERCENT INJURY-- MECH		NO RAD		MDD BURNS	
LIGHT MECH		MDD MECH		SEVERE MECH							
PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT
0.5- 1.0	9	93	4.3	0.5- 1.0	14	93	15.1	0.5- 1.0	0	93	0.0
1.0- 1.5	13	184	7.1	1.0- 1.5	51	184	27.7	1.0- 1.5	3	184	1.6
1.5- 2.0	10	125	8.0	1.5- 2.0	44	125	35.2	1.5- 2.0	2	125	1.6
2.0- 2.5	16	221	7.2	2.0- 2.5	31	221	36.7	2.0- 2.5	17	221	7.7
2.5- 3.0	7	208	3.4	2.5- 3.0	80	208	38.5	2.5- 3.0	21	208	10.1
3.0- 3.5	13	552	2.4	3.0- 3.5	201	552	36.4	3.0- 3.5	47	552	8.5
3.5- 4.0	12	738	1.6	3.5- 4.0	267	738	36.2	3.5- 4.0	16	738	2.2
4.0- 4.5	3	820	1.0	4.0- 4.5	351	820	44.0	4.0- 4.5	31	820	3.8
4.5- 5.0	12	857	1.4	4.5- 5.0	343	857	40.6	4.5- 5.0	25	857	2.9
5.0- 5.5	1	962	0.1	5.0- 5.5	430	962	44.7	5.0- 5.5	31	962	3.2
5.5- 6.0	1	378	0.1	5.5- 6.0	439	873	50.0	5.5- 6.0	15	878	1.7
6.0- 7.0	5	1070	0.3	6.0- 7.0	767	1670	45.9	6.0- 7.0	39	1670	2.3
7.0- 8.0	1	1077	0.1	7.0- 8.0	437	1077	40.8	7.0- 8.0	16	1077	1.5
8.0- 10.0	0	927	0.0	8.0- 10.0	233	927	25.7	8.0- 10.0	21	927	2.3
10.0- 12.0	1	501	0.2	10.0- 12.0	54	501	10.8	10.0- 12.0	7	501	1.4
12.0- 13.0	0	122	0.0	12.0- 13.0	4	122	3.3	12.0- 13.0	2	122	1.6
13.0- 14.0	0	109	0.0	13.0- 14.0	5	109	4.6	13.0- 14.0	2	109	1.8
14.0- 16.0	0	7	0.0	14.0- 16.0	2	7	28.6	14.0- 16.0	1	7	14.3
16.0- 18.0	0	0	0.0	16.0- 18.0	0	0	0.0	16.0- 18.0	0	0	0.0
18.0- 20.0	0	0	0.0	18.0- 20.0	0	0	0.0	18.0- 20.0	0	0	0.0
20.0- 25.0	0	6	0.0	20.0- 25.0	0	6	0.0	20.0- 25.0	0	6	0.0
25.0- 30.0	0	0	0.0	25.0- 30.0	0	0	0.0	25.0- 30.0	0	0	0.0
	104			3825					296		

MOD BURNS

SEVERE MECH

PERCENT

0.06

1.7

2.4

2.9 2.3

2.5

1.6
2.4

4.6

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SEP 22, 1983

LIGHT MECH		MOD FRAME		HIKUSHIMA		GROUPS PERCENT INJURY-- MECH		MOD RAD		SEVERE MECH		MOD BURNS	
PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES
0.0- 1.0	4	93	4.3	0.0- 1.0	14	93	15.1	0.0- 1.0	0	93	0.0	0.0- 1.0	0
1.0- 1.5	13	184	7.1	1.0- 1.5	51	134	27.7	1.0- 1.5	3	184	1.6	1.0- 1.5	3
1.5- 2.0	10	125	8.0	1.5- 2.0	44	125	35.2	1.5- 2.0	2	125	1.6	1.5- 2.0	2
2.0- 2.5	15	221	7.2	2.0- 2.5	31	221	36.7	2.0- 2.5	17	221	7.7	2.0- 2.5	17
2.5- 3.0	7	203	3.4	2.5- 3.0	30	203	38.5	2.5- 3.0	21	208	10.1	2.5- 3.0	21
3.0- 3.5	13	552	2.4	3.0- 3.5	211	552	38.2	3.0- 3.5	49	552	8.9	3.0- 3.5	49
3.5- 4.0	12	738	1.6	3.5- 4.0	333	738	37.2	3.5- 4.0	18	738	2.4	3.5- 4.0	18
4.0- 4.5	3	820	1.0	4.0- 4.5	343	820	46.7	4.0- 4.5	33	820	4.0	4.0- 4.5	33
4.5- 5.0	12	457	1.4	4.5- 5.0	374	457	43.6	4.5- 5.0	25	457	2.9	4.5- 5.0	25
5.0- 5.5	1	962	0.1	5.0- 5.5	457	962	47.5	5.0- 5.5	32	962	3.3	5.0- 5.5	32
5.5- 6.0	1	878	0.1	5.5- 6.0	470	878	53.5	5.5- 6.0	19	878	2.2	5.5- 6.0	19
6.0- 7.0	5	1670	0.3	6.0- 7.0	837	1670	50.1	6.0- 7.0	42	1670	2.5	6.0- 7.0	42
7.0- 8.0	2	1077	0.2	7.0- 8.0	510	1077	47.4	7.0- 8.0	22	1077	2.0	7.0- 8.0	22
8.0- 10.0	1	927	0.1	8.0- 10.0	360	927	38.8	8.0- 10.0	27	927	2.9	8.0- 10.0	27
10.0- 12.0	1	501	0.2	10.0- 12.0	140	501	27.9	10.0- 12.0	15	501	3.0	10.0- 12.0	15
12.0- 13.0	1	122	0.8	12.0- 13.0	26	122	21.3	12.0- 13.0	4	122	6.6	12.0- 13.0	4
13.0- 14.0	0	109	0.0	13.0- 14.0	21	109	19.3	13.0- 14.0	5	109	4.6	13.0- 14.0	5
14.0- 16.0	0	7	0.0	14.0- 16.0	2	7	28.6	14.0- 16.0	1	7	14.3	14.0- 16.0	1
16.0- 18.0	0	0	0.0	16.0- 18.0	0	0	0.0	16.0- 18.0	0	0	0.0	16.0- 18.0	0
18.0- 20.0	0	0	0.0	18.0- 20.0	0	0	0.0	18.0- 20.0	0	0	0.0	18.0- 20.0	0
20.0- 25.0	0	6	0.0	20.0- 25.0	0	6	0.0	20.0- 25.0	0	6	0.0	20.0- 25.0	0
25.0- 30.0	0	0	0.0	25.0- 30.0	0	0	0.0	25.0- 30.0	0	0	0.0	25.0- 30.0	0
	107				4350				339				

SEP 20, 1993	WOOD FRAME			HIRUSHIMA			GROUPS PERCENT INJURY-- MECH			NO RAD			SEVERE BURNS		
	LIGHT MECH			MOD MECH			MECH			SEVERE MECH					
	PSI	CASES	TOTAL PERCENT	PSI	CASES	TOTAL PERCENT	PSI	CASES	TOTAL PERCENT	PSI	CASES	TOTAL PERCENT	PSI	CASES	TOTAL PERCENT
0.5- 1.0	93	4	4.3	0.5- 1.0	14	15.1	0.5- 1.0	0	0.0	0.5- 1.0	0	93	0.0	0	0.0
1.0- 1.5	104	13	7.1	1.0- 1.5	21	184	1.0- 1.5	3	1.6	1.0- 1.5	3	184	1.6	3	1.6
1.5- 2.0	125	9	7.2	1.5- 2.0	42	35.6	1.5- 2.0	2	1.6	1.5- 2.0	2	125	1.6	2	1.6
2.0- 2.5	221	15	7.2	2.0- 2.5	31	221	2.0- 2.5	17	7.7	2.0- 2.5	17	221	7.7	17	7.7
2.5- 3.0	204	7	3.4	2.5- 3.0	31	204	2.5- 3.0	18	8.7	2.5- 3.0	18	204	8.7	18	8.7
3.0- 3.5	552	13	2.4	3.0- 3.5	174	552	3.0- 3.5	46	8.3	3.0- 3.5	46	552	8.3	46	8.3
3.5- 4.0	738	12	1.6	3.5- 4.0	253	738	3.5- 4.0	15	2.0	3.5- 4.0	15	738	2.0	15	2.0
4.0- 4.5	820	3	1.0	4.0- 4.5	343	820	4.0- 4.5	33	4.0	4.0- 4.5	33	820	4.0	33	4.0
4.5- 5.0	857	13	1.5	4.5- 5.0	335	857	4.5- 5.0	23	2.7	4.5- 5.0	23	857	2.7	23	2.7
5.0- 5.5	962	1	0.1	5.0- 5.5	408	962	5.0- 5.5	29	3.0	5.0- 5.5	29	962	3.0	29	3.0
5.5- 6.0	878	1	0.1	5.5- 6.0	424	878	5.5- 6.0	11	1.3	5.5- 6.0	11	878	1.3	11	1.3
6.0- 7.0	1670	2	0.3	6.0- 7.0	732	1670	6.0- 7.0	33	2.3	6.0- 7.0	33	1670	2.3	33	2.3
7.0- 8.0	1377	1	0.1	7.0- 8.0	410	1377	7.0- 8.0	15	1.4	7.0- 8.0	15	1377	1.4	15	1.4
8.0- 10.0	927	0	0.0	8.0- 10.0	230	927	8.0- 10.0	21	2.3	8.0- 10.0	21	927	2.3	21	2.3
10.0- 12.0	501	1	0.2	10.0- 12.0	53	501	10.0- 12.0	7	1.4	10.0- 12.0	7	501	1.4	7	1.4
12.0- 13.0	122	0	0.0	12.0- 13.0	3	122	12.0- 13.0	2	1.6	12.0- 13.0	2	122	1.6	2	1.6
13.0- 14.0	109	0	0.0	13.0- 14.0	4	109	13.0- 14.0	2	1.8	13.0- 14.0	2	109	1.8	2	1.8
14.0- 16.0	7	0	0.0	14.0- 16.0	2	7	14.0- 16.0	1	14.3	14.0- 16.0	1	7	14.3	1	14.3
16.0- 18.0	0	0	0.0	16.0- 18.0	0	0	16.0- 18.0	0	0.0	16.0- 18.0	0	0	0.0	0	0.0
18.0- 20.0	0	0	0.0	18.0- 20.0	0	0	18.0- 20.0	0	0.0	18.0- 20.0	0	0	0.0	0	0.0
20.0- 25.0	0	0	0.0	20.0- 25.0	0	0	20.0- 25.0	0	0.0	20.0- 25.0	0	0	0.0	0	0.0
25.0- 30.0	0	0	0.0	25.0- 30.0	0	0	25.0- 30.0	0	0.0	25.0- 30.0	0	0	0.0	0	0.0
		104			3671							283			

SEVERE BURNS

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SEP 22, 1983	WJDD FRAME	HIROSHIMA	GROUP'S PERCENT INJURY--	MECH	MUD RAD	SEVERE BURNS
LIGHT MECH		MDD MECH		SEVERE MECH		
PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL
0.5- 1.0	4	93	4.3	0.5- 1.0	0	93
1.0- 1.5	13	184	7.1	1.0- 1.5	3	184
1.5- 2.0	9	125	7.2	1.5- 2.0	2	125
2.0- 2.5	10	221	7.2	2.0- 2.5	17	221
2.5- 3.0	7	208	3.4	2.5- 3.0	13	208
3.0- 3.5	13	552	2.4	3.0- 3.5	49	552
3.5- 4.0	12	738	1.6	3.5- 4.0	17	738
4.0- 4.5	8	820	1.0	4.0- 4.5	35	820
4.5- 5.0	13	857	1.0	4.5- 5.0	23	857
5.0- 5.5	1	962	0.1	5.0- 5.5	30	962
5.5- 6.0	1	878	0.1	5.5- 6.0	14	878
6.0- 7.0	5	1670	0.3	6.0- 7.0	40	1670
7.0- 8.0	2	1077	0.2	7.0- 8.0	20	1077
8.0- 10.0	1	927	0.1	8.0- 10.0	27	927
10.0- 12.0	1	501	0.2	10.0- 12.0	13	501
12.0- 13.0	1	122	0.8	12.0- 13.0	8	122
13.0- 14.0	0	109	0.0	13.0- 14.0	6	109
14.0- 15.0	7	7	0.0	14.0- 15.0	1	7
15.0- 16.0	0	0	0.0	15.0- 16.0	0	0
16.0- 18.0	0	0	0.0	16.0- 18.0	0	0
18.0- 20.0	0	0	0.0	18.0- 20.0	0	0
20.0- 25.0	0	6	0.0	20.0- 25.0	0	6
25.0- 30.0	0	0	0.0	25.0- 30.0	0	0
	107				323	

S-P 22, 1953

WADD FRAME HIKUSHIMA GROUPS PERCENT INJURY-- MECH SEVERE RAD SEVERE MECH SEVERE BURNS

LIGHT MECH				MUD MECH				SEVERE MECH			
PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT	PSI	CASES	TOTAL	PERCENT
0.5- 1.0	4	93	4.3	0.5- 1.0	14	93	15.1	0.5- 1.0	0	93	0.0
1.0- 1.5	13	184	7.1	1.0- 1.5	51	184	27.7	1.0- 1.5	3	184	1.6
1.5- 2.0	9	125	7.2	1.5- 2.0	42	125	33.6	1.5- 2.0	2	125	1.6
2.0- 2.5	16	221	7.2	2.0- 2.5	81	221	36.7	2.0- 2.5	17	221	7.7
2.5- 3.0	7	203	3.4	2.5- 3.0	51	203	38.9	2.5- 3.0	18	203	8.7
3.0- 3.5	13	552	2.4	3.0- 3.5	196	552	35.5	3.0- 3.5	47	552	8.5
3.5- 4.0	12	738	1.6	3.5- 4.0	265	738	35.9	3.5- 4.0	18	738	2.4
4.0- 4.5	8	820	1.0	4.0- 4.5	353	820	43.0	4.0- 4.5	33	820	4.0
4.5- 5.0	13	857	1.5	4.5- 5.0	336	857	39.2	4.5- 5.0	23	857	2.7
5.0- 5.5	1	962	0.1	5.0- 5.5	413	962	42.9	5.0- 5.5	29	962	3.0
5.5- 6.0	1	878	0.1	5.5- 6.0	434	878	49.4	5.5- 6.0	12	878	1.4
6.0- 7.0	5	1670	0.3	6.0- 7.0	747	1670	44.7	6.0- 7.0	44	1670	2.6
7.0- 8.0	1	1777	0.1	7.0- 8.0	435	1777	40.5	7.0- 8.0	23	1777	1.1
8.0- 10.0	1	927	0.1	8.0- 10.0	351	927	37.9	8.0- 10.0	30	927	3.2
10.0- 12.0	3	501	0.6	10.0- 12.0	163	501	32.5	10.0- 12.0	30	501	6.0
12.0- 13.0	1	122	0.8	12.0- 13.0	34	122	27.9	12.0- 13.0	10	122	8.2
13.0- 14.0	1	109	0.9	13.0- 14.0	37	109	33.9	13.0- 14.0	6	109	5.5
14.0- 16.0	1	7	14.3	14.0- 16.0	3	7	42.9	14.0- 16.0	2	7	28.6
16.0- 18.0	0	0	*****	16.0- 18.0	0	0	*****	16.0- 18.0	0	0	*****
18.0- 20.0	0	0	*****	18.0- 20.0	0	0	*****	18.0- 20.0	0	0	*****
20.0- 25.0	0	0	0.0	20.0- 25.0	3	6	50.0	20.0- 25.0	0	6	0.0
25.0- 30.0	0	0	*****	25.0- 30.0	0	0	*****	25.0- 30.0	0	0	*****
	110			4040					347		

HIMUSHIMA **SUMMARY** OUTSIDE UNSH
TOT UNINJURED: 171

SEP 13, 1983 TOTAL REC: 18490

INJURED

MORTALLY INJURED

KILLED IMMEDIATELY

RU BN	NONE	MECHANICAL			TOTAL	RU BN	NONE	MECHANICAL			TOTAL	RO BN	NONE	MECHANICAL			TOTAL
		MN	MD	SV				MN	MD	SV				MN	MD	SV	
N	4	5	45	8	58	N	0	0	0	0	0	N	0	0	0	0	0
MN	6	1	1	0	8	MN	0	0	0	0	0	MN	0	0	0	0	0
N MD	651	5	91	3	750	N MD	36	0	5	0	41	N MD	16	0	1	0	17
N SV	507	12	49	5	655	N SV	45	0	4	0	49	N SV	11	0	1	0	12
N TL	1244	23	106	16	1469	N TL	81	0	9	0	90	N TL	27	0	2	0	29
MN N	0	0	0	1	11	MN N	0	0	0	0	0	MN N	0	0	0	0	0
MN MD	33	1	5	1	40	MN MD	1	0	0	0	1	MN MD	0	0	0	0	0
MN SV	40	1	1	2	44	MN SV	0	0	0	0	0	MN SV	0	0	0	0	0
MN TL	79	2	10	4	95	MN TL	1	0	0	0	1	MN TL	0	0	0	0	0
MD N	13	0	9	1	23	MD N	0	0	1	0	1	MD N	0	0	0	0	0
MD MD	101	0	34	1	216	MD MD	3	0	0	0	3	MD MD	0	0	0	0	0
MD SV	57	3	15	1	116	MD SV	0	0	0	0	0	MD SV	0	0	0	0	0
MD TL	291	3	59	3	356	MD TL	3	0	1	0	4	MD TL	0	0	0	0	0
SV N	0	0	9	0	10	SV N	0	0	0	0	0	SV N	0	0	1	0	1
SV MD	62	0	26	2	90	SV MD	3	0	0	0	3	SV MD	0	0	0	0	0
SV SV	33	1	13	0	47	SV SV	3	0	0	0	3	SV SV	0	0	0	0	0
SV TL	101	1	49	2	153	SV TL	7	0	0	0	7	SV TL	0	0	1	0	1
ALL RADIATION																	
MECHANICAL																	
BURNS	25	5	67	10	102	BURNS	0	0	1	0	1	BURNS	0	0	1	0	1
N	4	1	3	0	8	N	1	0	0	0	1	N	0	0	0	0	0
MN	927	6	156	7	1096	MN	43	0	5	0	48	MN	16	0	1	0	17
MD	759	17	78	8	862	MD	48	0	4	0	52	MD	11	0	1	0	12
SV	1715	29	304	25	2073	SV	92	0	10	0	102	SV	27	0	3	0	30
TL	1715	29	304	25	2073	TL	92	0	10	0	102	TL	27	0	3	0	30
ALL BURNS																	
MECHANICAL																	
RAD	1244	23	106	16	1469	RAD	31	0	9	0	90	RAD	27	0	2	0	29
N	79	2	10	4	95	N	1	0	0	0	1	N	0	0	0	0	0
MN	291	3	59	3	356	MN	3	0	1	0	4	MN	0	0	0	0	0
MD	101	1	49	2	153	MD	7	0	0	0	7	MD	0	0	1	0	1
SV	1715	29	304	25	2073	SV	92	0	10	0	102	SV	27	0	3	0	30
TL	1715	29	304	25	2073	TL	92	0	10	0	102	TL	27	0	3	0	30
ALL MECHANICAL																	
BURNS																	
RAD	58	6	750	655	1469	RAD	0	0	41	49	90	RAD	0	0	17	12	29
N	11	0	40	44	95	N	0	0	1	0	1	N	0	0	0	0	0
MN	23	1	216	116	356	MN	1	0	3	0	4	MN	0	0	0	0	0
MD	15	1	90	47	153	MD	0	1	3	3	7	MD	1	0	0	0	1
SV	107	8	1096	862	2073	SV	1	1	48	52	102	SV	1	0	17	12	30
TL	107	8	1096	862	2073	TL	1	1	48	52	102	TL	1	0	17	12	30

SEP 22, 1983	OUTSIDE UNSH			HIROSHIMA	GROUPS PERCENT INJURY--			BURNS			NO MECH			NO RAD		
LIGHT BURNS																
CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	
0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	
1.0- 1.5	0	41	0.0	1.0- 1.5	2	41	4.9	1.0- 1.5	0	41	0.0	1.0- 1.5	0	41	0.0	
1.5- 2.0	1	47	2.1	1.5- 2.0	7	47	14.9	1.5- 2.0	0	47	0.0	1.5- 2.0	0	47	0.0	
2.0- 2.5	0	19	0.0	2.0- 2.5	7	19	36.8	2.0- 2.5	1	19	5.3	2.0- 2.5	1	19	5.3	
2.5- 3.0	0	16	0.0	2.5- 3.0	4	16	25.0	2.5- 3.0	3	16	18.8	2.5- 3.0	3	16	18.8	
3.0- 3.5	0	19	0.0	3.0- 3.5	6	19	31.6	3.0- 3.5	5	19	26.3	3.0- 3.5	5	19	26.3	
3.5- 4.0	0	40	0.0	3.5- 4.0	14	40	35.0	3.5- 4.0	15	40	37.5	3.5- 4.0	15	40	37.5	
4.0- 4.5	1	45	2.2	4.0- 4.5	18	45	40.0	4.0- 4.5	15	45	33.3	4.0- 4.5	15	45	33.3	
4.5- 5.0	0	34	0.0	4.5- 5.0	8	34	23.5	4.5- 5.0	20	34	58.8	4.5- 5.0	20	34	58.8	
5.0- 5.5	0	149	0.0	5.0- 5.5	33	149	22.1	5.0- 5.5	90	149	60.4	5.0- 5.5	90	149	60.4	
5.5- 6.0	0	99	0.0	5.5- 6.0	25	99	25.3	5.5- 6.0	60	99	60.6	5.5- 6.0	60	99	60.6	
6.0- 7.0	0	66	0.0	6.0- 7.0	19	66	28.8	6.0- 7.0	36	66	54.5	6.0- 7.0	36	66	54.5	
7.0- 8.0	0	124	0.0	7.0- 8.0	41	124	33.1	7.0- 8.0	44	124	35.5	7.0- 8.0	44	124	35.5	
8.0- 10.0	1	442	0.2	8.0- 10.0	129	442	29.2	8.0- 10.0	144	442	32.6	8.0- 10.0	144	442	32.6	
10.0- 12.0	1	468	0.2	10.0- 12.0	214	468	45.7	10.0- 12.0	67	468	14.3	10.0- 12.0	67	468	14.3	
12.0- 14.0	0	154	0.0	12.0- 14.0	43	154	27.9	12.0- 14.0	31	154	20.1	12.0- 14.0	31	154	20.1	
14.0- 16.0	0	109	0.0	14.0- 16.0	30	109	27.5	14.0- 16.0	26	109	23.9	14.0- 16.0	26	109	23.9	
16.0- 18.0	0	62	0.0	16.0- 18.0	13	62	21.0	16.0- 18.0	10	62	16.1	16.0- 18.0	10	62	16.1	
18.0- 20.0	0	73	0.0	18.0- 20.0	14	73	19.2	18.0- 20.0	7	73	9.6	18.0- 20.0	7	73	9.6	
20.0- 25.0	0	115	0.0	20.0- 25.0	11	115	9.6	20.0- 25.0	5	115	4.3	20.0- 25.0	5	115	4.3	
25.0- 30.0	0	69	0.0	25.0- 30.0	10	69	14.5	25.0- 30.0	7	69	10.1	25.0- 30.0	7	69	10.1	
30.0- 40.0	0	28	0.0	30.0- 40.0	2	28	7.1	30.0- 40.0	2	28	7.1	30.0- 40.0	2	28	7.1	
40.0- 50.0	0	6	0.0	40.0- 50.0	1	6	16.7	40.0- 50.0	0	6	0.0	40.0- 50.0	0	6	0.0	
50.0- 60.0	0	3	0.0	50.0- 60.0	0	3	0.0	50.0- 60.0	1	3	33.3	50.0- 60.0	1	3	33.3	
60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	
80.0-100.0	0	2	0.0	80.0-100.0	0	2	0.0	80.0-100.0	0	2	0.0	80.0-100.0	0	2	0.0	
100.0-125.0	0	0	++++	100.0-125.0	0	0	++++	100.0-125.0	0	0	++++	100.0-125.0	0	0	++++	
4				651				589								

SEP 22, 1983	OUTSIDE UNSH			HIKUSHIMA			GROUPS PERCENT INJURY-- BURNS			MOD MECH			NO RAD		
	LIGHT BURNS			MOD BURNS			SEVERE BURNS								
	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL
0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11
1.0- 1.5	0	41	0.0	1.0- 1.5	2	41	4.9	4.9	1.0- 1.5	0	41	0.0	1.0- 1.5	0	41
1.5- 2.0	1	47	2.1	1.5- 2.0	7	47	14.9	14.9	1.5- 2.0	0	47	0.0	1.5- 2.0	0	47
2.0- 2.5	0	19	0.0	2.0- 2.5	7	19	36.8	36.8	2.0- 2.5	1	19	5.3	2.0- 2.5	1	19
2.5- 3.0	0	16	0.0	2.5- 3.0	4	16	25.0	25.0	2.5- 3.0	3	16	18.8	2.5- 3.0	3	16
3.0- 3.5	0	19	0.0	3.0- 3.5	6	19	31.6	31.6	3.0- 3.5	7	19	36.8	3.0- 3.5	7	19
3.5- 4.0	0	40	0.0	3.5- 4.0	15	40	37.5	37.5	3.5- 4.0	16	40	40.0	3.5- 4.0	16	40
4.0- 4.5	1	45	2.2	4.0- 4.5	18	45	40.0	40.0	4.0- 4.5	17	45	37.8	4.0- 4.5	17	45
4.5- 5.0	0	34	0.0	4.5- 5.0	11	34	32.4	32.4	4.5- 5.0	22	34	64.7	4.5- 5.0	22	34
5.0- 5.5	0	149	0.0	5.0- 5.5	39	149	26.2	26.2	5.0- 5.5	100	149	67.1	5.0- 5.5	100	149
5.5- 6.0	0	99	0.0	5.5- 6.0	29	99	29.3	29.3	5.5- 6.0	64	99	64.6	5.5- 6.0	64	99
6.0- 7.0	0	66	0.0	6.0- 7.0	19	66	28.8	28.8	6.0- 7.0	38	66	57.6	6.0- 7.0	38	66
7.0- 8.0	0	124	0.0	7.0- 8.0	48	124	38.7	38.7	7.0- 8.0	44	124	35.5	7.0- 8.0	44	124
8.0- 10.0	1	442	0.2	8.0- 10.0	145	442	32.8	32.8	8.0- 10.0	156	442	35.3	8.0- 10.0	156	442
10.0- 12.0	0	468	0.4	10.0- 12.0	236	468	50.4	50.4	10.0- 12.0	71	468	15.2	10.0- 12.0	71	468
12.0- 14.0	0	154	0.0	12.0- 14.0	60	154	39.0	39.0	12.0- 14.0	34	154	22.1	12.0- 14.0	34	154
14.0- 16.0	0	109	0.0	14.0- 16.0	35	109	32.1	32.1	14.0- 16.0	29	109	26.6	14.0- 16.0	29	109
16.0- 18.0	0	62	0.0	16.0- 18.0	17	62	27.4	27.4	16.0- 18.0	10	62	16.1	16.0- 18.0	10	62
18.0- 20.0	0	73	0.0	18.0- 20.0	16	73	21.9	21.9	18.0- 20.0	8	73	11.0	18.0- 20.0	8	73
20.0- 25.0	0	115	0.0	20.0- 25.0	13	115	11.3	11.3	20.0- 25.0	5	115	4.3	20.0- 25.0	5	115
25.0- 30.0	0	69	0.0	25.0- 30.0	11	69	15.9	15.9	25.0- 30.0	8	69	11.6	25.0- 30.0	8	69
30.0- 40.0	0	28	0.0	30.0- 40.0	3	28	10.7	10.7	30.0- 40.0	3	28	10.7	30.0- 40.0	3	28
40.0- 50.0	0	6	0.0	40.0- 50.0	1	6	16.7	16.7	40.0- 50.0	0	6	0.0	40.0- 50.0	0	6
50.0- 60.0	0	3	0.0	50.0- 60.0	0	3	0.0	0.0	50.0- 60.0	1	3	33.3	50.0- 60.0	1	3
60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1
80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	0.0	80.0- 100.0	1	2	50.0	80.0- 100.0	1	2
100.0- 125.0	0	0	0.0	100.0- 125.0	0	0	0.0	0.0	100.0- 125.0	0	0	0.0	100.0- 125.0	0	0
	5				742			638							

SEP 22, 1983	LIGHT BURNS				MJD BURNS				SEVERE BURNS				SEVERE MECH				NO RAD			
	OUTSIDE UNSH		HIROSHIMA		GROUPS PERCENT INJURY--		BURNS		SEVERE MECH		NO RAD		SEVERE MECH		NO RAD		SEVERE MECH		NO RAD	
	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT
0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.0
1.0- 1.5	0	41	0.0	1.0- 1.5	2	41	4.9	1.0- 1.5	2	41	4.9	1.0- 1.5	0	41	0.0	1.0- 1.5	0	41	0.0	0.0
1.5- 2.0	1	47	2.1	1.5- 2.0	7	47	14.9	1.5- 2.0	7	47	14.9	1.5- 2.0	0	47	0.0	1.5- 2.0	0	47	0.0	0.0
2.0- 2.5	0	19	0.0	2.0- 2.5	7	19	36.8	2.0- 2.5	7	19	36.8	2.0- 2.5	1	19	5.3	2.0- 2.5	1	19	5.3	5.3
2.5- 3.0	0	16	0.0	2.5- 3.0	6	16	25.0	2.5- 3.0	6	16	25.0	2.5- 3.0	3	16	18.8	2.5- 3.0	3	16	18.8	18.8
3.0- 3.5	0	19	0.0	3.0- 3.5	6	19	31.6	3.0- 3.5	6	19	31.6	3.0- 3.5	5	19	26.3	3.0- 3.5	5	19	26.3	26.3
3.5- 4.0	0	40	0.0	3.5- 4.0	14	40	35.0	3.5- 4.0	14	40	35.0	3.5- 4.0	15	40	37.5	3.5- 4.0	15	40	37.5	37.5
4.0- 4.5	1	45	2.2	4.0- 4.5	19	45	42.2	4.0- 4.5	19	45	42.2	4.0- 4.5	15	45	33.3	4.0- 4.5	15	45	33.3	33.3
4.5- 5.0	0	34	0.0	4.5- 5.0	8	34	23.5	4.5- 5.0	8	34	23.5	4.5- 5.0	20	34	58.8	4.5- 5.0	20	34	58.8	58.8
5.0- 5.5	0	149	0.0	5.0- 5.5	34	149	22.8	5.0- 5.5	34	149	22.8	5.0- 5.5	91	149	61.1	5.0- 5.5	91	149	61.1	61.1
5.5- 6.0	0	99	0.0	5.5- 6.0	25	99	25.3	5.5- 6.0	25	99	25.3	5.5- 6.0	60	99	60.6	5.5- 6.0	60	99	60.6	60.6
6.0- 7.0	0	66	0.0	6.0- 7.0	19	66	28.8	6.0- 7.0	19	66	28.8	6.0- 7.0	36	66	54.5	6.0- 7.0	36	66	54.5	54.5
7.0- 8.0	0	124	0.0	7.0- 8.0	41	124	33.1	7.0- 8.0	41	124	33.1	7.0- 8.0	45	124	36.3	7.0- 8.0	45	124	36.3	36.3
8.0- 10.0	1	442	0.2	8.0- 10.0	129	442	29.2	8.0- 10.0	129	442	29.2	8.0- 10.0	146	442	33.0	8.0- 10.0	146	442	33.0	33.0
10.0- 12.0	1	468	0.2	10.0- 12.0	215	468	45.9	10.0- 12.0	215	468	45.9	10.0- 12.0	67	468	14.3	10.0- 12.0	67	468	14.3	14.3
12.0- 14.0	0	154	0.0	12.0- 14.0	63	154	27.9	12.0- 14.0	63	154	27.9	12.0- 14.0	32	154	20.8	12.0- 14.0	32	154	20.8	20.8
14.0- 16.0	0	109	0.0	14.0- 16.0	30	109	27.5	14.0- 16.0	30	109	27.5	14.0- 16.0	26	109	23.9	14.0- 16.0	26	109	23.9	23.9
16.0- 18.0	0	62	0.0	16.0- 18.0	13	62	21.0	16.0- 18.0	13	62	21.0	16.0- 18.0	10	62	16.1	16.0- 18.0	10	62	16.1	16.1
18.0- 20.0	0	73	0.0	18.0- 20.0	14	73	19.2	18.0- 20.0	14	73	19.2	18.0- 20.0	7	73	9.6	18.0- 20.0	7	73	9.6	9.6
20.0- 25.0	0	115	0.0	20.0- 25.0	11	115	9.6	20.0- 25.0	11	115	9.6	20.0- 25.0	5	115	4.3	20.0- 25.0	5	115	4.3	4.3
25.0- 30.0	0	69	0.0	25.0- 30.0	10	69	14.5	25.0- 30.0	10	69	14.5	25.0- 30.0	7	69	10.1	25.0- 30.0	7	69	10.1	10.1
30.0- 40.0	0	28	0.0	30.0- 40.0	2	28	7.1	30.0- 40.0	2	28	7.1	30.0- 40.0	2	28	7.1	30.0- 40.0	2	28	7.1	7.1
40.0- 50.0	0	6	0.0	40.0- 50.0	1	6	16.7	40.0- 50.0	1	6	16.7	40.0- 50.0	0	6	0.0	40.0- 50.0	0	6	0.0	0.0
50.0- 60.0	0	3	0.0	50.0- 60.0	0	3	0.0	50.0- 60.0	0	3	0.0	50.0- 60.0	1	3	33.3	50.0- 60.0	1	3	33.3	33.3
60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	0.0
80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	0.0
100.0- 125.0	0	0	++++	100.0- 125.0	0	0	++++	100.0- 125.0	0	0	++++	100.0- 125.0	0	0	++++	100.0- 125.0	0	0	++++	++++
	4				654				654				594							

SEP 22, 1983

OUTSIDE UNSH

HIROSHIMA

GROUPS PERCENT INJURY-- BURNS

NO MECH

LIGHT RAD

LIGHT BURNS

MID BURNS

SEVERE BURNS

CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT
0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0
1.0- 1.5	0	41	0.0	1.0- 1.5	2	41	4.9	1.0- 1.5	0	41	0.0
1.5- 2.0	1	47	2.1	1.5- 2.0	7	47	14.9	1.5- 2.0	0	47	0.0
2.0- 2.5	0	19	0.0	2.0- 2.5	7	19	36.8	2.0- 2.5	1	19	5.3
2.5- 3.0	0	16	0.0	2.5- 3.0	4	16	25.0	2.5- 3.0	3	16	18.8
3.0- 3.5	0	19	0.0	3.0- 3.5	6	19	31.6	3.0- 3.5	5	19	26.3
3.5- 4.0	0	40	0.0	3.5- 4.0	14	40	35.0	3.5- 4.0	15	40	37.5
4.0- 4.5	1	45	2.2	4.0- 4.5	14	45	40.0	4.0- 4.5	15	45	33.3
4.5- 5.0	0	34	0.0	4.5- 5.0	8	34	23.5	4.5- 5.0	20	34	58.8
5.0- 5.5	0	149	0.0	5.0- 5.5	33	149	22.1	5.0- 5.5	90	149	60.4
5.5- 6.0	0	99	0.0	5.5- 6.0	25	99	25.3	5.5- 6.0	60	99	60.6
6.0- 7.0	0	66	0.0	6.0- 7.0	19	66	28.8	6.0- 7.0	36	66	54.5
7.0- 8.0	0	124	0.0	7.0- 8.0	41	124	33.1	7.0- 8.0	44	124	35.5
8.0- 10.0	1	442	0.2	8.0- 10.0	141	442	31.9	8.0- 10.0	168	442	38.0
10.0- 12.0	1	468	0.2	10.0- 12.0	225	468	48.1	10.0- 12.0	70	468	15.0
12.0- 14.0	0	154	0.0	12.0- 14.0	46	154	29.9	12.0- 14.0	35	154	22.7
14.0- 16.0	0	109	0.0	14.0- 16.0	32	109	29.4	14.0- 16.0	23	109	25.7
16.0- 18.0	0	62	0.0	16.0- 18.0	14	62	22.6	16.0- 18.0	10	62	16.1
18.0- 20.0	0	73	0.0	18.0- 20.0	15	73	20.5	18.0- 20.0	11	73	15.1
20.0- 25.0	0	115	0.0	20.0- 25.0	13	115	11.3	20.0- 25.0	6	115	5.2
25.0- 30.0	0	63	0.0	25.0- 30.0	11	69	15.9	25.0- 30.0	8	69	11.6
30.0- 40.0	0	28	0.0	30.0- 40.0	2	28	7.1	30.0- 40.0	3	28	10.7
40.0- 50.0	0	6	0.0	40.0- 50.0	1	6	16.7	40.0- 50.0	0	6	0.0
50.0- 60.0	0	3	0.0	50.0- 60.0	0	3	0.0	50.0- 60.0	1	3	33.3
60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0
80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0
100.0- 125.0	0	0	++++	100.0- 125.0	0	0	++++	100.0- 125.0	0	0	++++
	4				684				629		

SEP 22, 1983				OUTSIDE UNSH				HIROSHIMA				GROUPS PERCENT INJURY-- BURNS				LIGHT MECH				LIGHT RAD			
				LIGHT BURNS				MOD BURNS				SEVERE BURNS											
CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT
0.5-	0	11	0.0	0.5-	0	11	0.0	0.5-	0	11	0.0	0.5-	0	11	0.0	0.5-	0	11	0.0	0.5-	0	11	0.0
1.0-	0	41	0.0	1.0-	2	41	4.9	1.0-	2	41	4.9	1.0-	0	41	0.0	1.0-	0	41	0.0	1.0-	0	41	0.0
1.5-	1	47	2.1	1.5-	7	47	14.9	1.5-	7	47	14.9	1.5-	0	47	0.0	1.5-	0	47	0.0	1.5-	0	47	0.0
2.0-	0	19	0.0	2.0-	7	19	36.8	2.0-	7	19	36.8	2.0-	1	19	5.3	2.0-	1	19	5.3	2.0-	1	19	5.3
2.5-	0	16	0.0	2.5-	4	16	25.0	2.5-	4	16	25.0	2.5-	3	16	18.8	2.5-	3	16	18.8	2.5-	3	16	18.8
3.0-	0	19	0.0	3.0-	6	19	31.6	3.0-	6	19	31.6	3.0-	5	19	26.3	3.0-	5	19	26.3	3.0-	5	19	26.3
3.5-	0	40	0.0	3.5-	14	40	35.0	3.5-	14	40	35.0	3.5-	15	40	37.5	3.5-	15	40	37.5	3.5-	15	40	37.5
4.0-	1	45	2.2	4.0-	18	45	40.0	4.0-	18	45	40.0	4.0-	15	45	33.3	4.0-	15	45	33.3	4.0-	15	45	33.3
4.5-	0	34	0.0	4.5-	8	34	23.5	4.5-	8	34	23.5	4.5-	20	34	58.8	4.5-	20	34	58.8	4.5-	20	34	58.8
5.0-	0	149	0.0	5.0-	34	149	22.8	5.0-	34	149	22.8	5.0-	93	149	62.4	5.0-	93	149	62.4	5.0-	93	149	62.4
5.5-	0	99	0.0	5.5-	26	99	26.3	5.5-	26	99	26.3	5.5-	63	99	63.6	5.5-	63	99	63.6	5.5-	63	99	63.6
6.0-	0	66	0.0	6.0-	19	66	28.8	6.0-	19	66	28.8	6.0-	37	66	56.1	6.0-	37	66	56.1	6.0-	37	66	56.1
7.0-	0	124	0.0	7.0-	41	124	33.1	7.0-	41	124	33.1	7.0-	45	124	36.3	7.0-	45	124	36.3	7.0-	45	124	36.3
8.0-	1	442	0.2	8.0-	144	442	32.6	8.0-	144	442	32.6	8.0-	172	442	39.9	8.0-	172	442	39.9	8.0-	172	442	39.9
10.0-	1	468	0.2	10.0-	225	468	48.1	10.0-	225	468	48.1	10.0-	71	468	15.2	10.0-	71	468	15.2	10.0-	71	468	15.2
12.0-	0	154	0.0	12.0-	46	154	29.9	12.0-	46	154	29.9	12.0-	35	154	22.7	12.0-	35	154	22.7	12.0-	35	154	22.7
14.0-	0	109	0.0	14.0-	32	109	29.4	14.0-	32	109	29.4	14.0-	28	109	25.7	14.0-	28	109	25.7	14.0-	28	109	25.7
15.0-	0	62	0.0	15.0-	14	62	22.6	15.0-	14	62	22.6	15.0-	10	62	16.1	15.0-	10	62	16.1	15.0-	10	62	16.1
18.0-	0	73	0.0	18.0-	16	73	21.9	18.0-	16	73	21.9	18.0-	11	73	15.1	18.0-	11	73	15.1	18.0-	11	73	15.1
20.0-	0	115	0.0	20.0-	13	115	11.3	20.0-	13	115	11.3	20.0-	6	115	5.2	20.0-	6	115	5.2	20.0-	6	115	5.2
25.0-	0	69	1.4	25.0-	11	69	15.9	25.0-	11	69	15.9	25.0-	8	69	11.6	25.0-	8	69	11.6	25.0-	8	69	11.6
30.0-	0	28	0.0	30.0-	2	28	7.1	30.0-	2	28	7.1	30.0-	3	28	10.7	30.0-	3	28	10.7	30.0-	3	28	10.7
40.0-	0	6	0.0	40.0-	1	6	16.7	40.0-	1	6	16.7	40.0-	0	6	0.0	40.0-	0	6	0.0	40.0-	0	6	0.0
50.0-	0	3	0.0	50.0-	0	3	0.0	50.0-	0	3	0.0	50.0-	1	3	33.3	50.0-	1	3	33.3	50.0-	1	3	33.3
60.0-	0	1	0.0	60.0-	0	1	0.0	60.0-	0	1	0.0	60.0-	0	1	0.0	60.0-	0	1	0.0	60.0-	0	1	0.0
80.0-	0	2	0.0	80.0-	0	2	0.0	80.0-	0	2	0.0	80.0-	0	2	0.0	80.0-	0	2	0.0	80.0-	0	2	0.0
100.0-	0	0	0.0	100.0-	0	0	0.0	100.0-	0	0	0.0	100.0-	0	0	0.0	100.0-	0	0	0.0	100.0-	0	0	0.0
100.0-125.0	0	0	0.0	100.0-125.0	0	0	0.0	100.0-125.0	0	0	0.0	100.0-125.0	0	0	0.0	100.0-125.0	0	0	0.0	100.0-125.0	0	0	0.0
642				690				690				642				642				642			

SEP 22, 1983

LIGHT RAD

MOD MECH

BURNS

MIRUSHIMA

OUTSIDE UNSH

SEP 22, 1983

LIGHT BURNS				GROUPS PERCENT INJURY-- BURNS				SEVERE BURNS			
CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT
0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0
1.0- 1.5	0	41	0.0	1.0- 1.5	2	41	4.9	1.0- 1.5	0	41	0.0
1.5- 2.0	1	47	2.1	1.5- 2.0	7	47	14.9	1.5- 2.0	0	47	0.0
2.0- 2.5	0	19	0.0	2.0- 2.5	7	19	36.8	2.0- 2.5	1	19	5.3
2.5- 3.0	0	16	0.0	2.5- 3.0	4	16	25.0	2.5- 3.0	3	16	18.8
3.0- 3.5	0	19	0.0	3.0- 3.5	6	19	31.6	3.0- 3.5	7	19	36.8
3.5- 4.0	0	40	0.0	3.5- 4.0	15	40	37.5	3.5- 4.0	16	40	40.0
4.0- 4.5	1	45	2.2	4.0- 4.5	18	45	40.0	4.0- 4.5	17	45	37.8
4.5- 5.0	0	34	0.0	4.5- 5.0	11	34	32.4	4.5- 5.0	22	34	64.7
5.0- 5.5	0	149	0.0	5.0- 5.5	39	149	26.2	5.0- 5.5	100	149	67.1
5.5- 6.0	0	99	0.0	5.5- 6.0	29	99	29.3	5.5- 6.0	64	99	64.6
6.0- 7.0	0	66	0.0	6.0- 7.0	19	66	28.8	6.0- 7.0	38	66	57.6
7.0- 8.0	0	124	0.0	7.0- 8.0	49	124	39.5	7.0- 8.0	44	124	35.5
8.0- 10.0	1	442	0.2	8.0- 10.0	159	442	36.0	8.0- 10.0	181	442	41.0
10.0- 12.0	2	468	0.4	10.0- 12.0	247	468	52.8	10.0- 12.0	74	468	15.8
12.0- 14.0	0	154	0.0	12.0- 14.0	63	154	40.9	12.0- 14.0	34	154	24.7
14.0- 16.0	0	109	0.0	14.0- 16.0	37	109	33.9	14.0- 16.0	31	109	28.4
16.0- 18.0	0	62	0.0	16.0- 18.0	18	62	29.0	16.0- 18.0	10	62	16.1
18.0- 20.0	0	73	0.0	18.0- 20.0	18	73	24.7	18.0- 20.0	12	73	16.4
20.0- 25.0	0	115	0.0	20.0- 25.0	16	115	13.9	20.0- 25.0	6	115	5.2
25.0- 30.0	0	69	0.0	25.0- 30.0	12	69	17.4	25.0- 30.0	9	69	13.0
30.0- 40.0	0	28	0.0	30.0- 40.0	3	28	10.7	30.0- 40.0	4	28	14.3
40.0- 50.0	0	6	0.0	40.0- 50.0	1	6	16.7	40.0- 50.0	0	6	0.0
50.0- 60.0	0	3	0.0	50.0- 60.0	0	3	0.0	50.0- 60.0	1	3	33.3
60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0
80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	80.0- 100.0	1	2	50.0
100.0-125.0	0	0	++++	100.0-125.0	0	0	++++	100.0-125.0	0	0	++++
	5				780				679		

SEP 22, 1983	LIGHT BURNS				OUTSIDE UNSH				HIROSHIMA				GROUPS PERCENT INJURY-- BURNS				SEVERE MECH				LIGHT RAD			
	CAL		CASES		TOTAL		PERCENT		CAL		CASES		TOTAL		PERCENT		CAL		CASES		TOTAL		PERCENT	
0.5-	1.0	0	11	0.0	0.5-	1.0	0	11	0.0	0.5-	1.0	0	11	0.0	0.0	0.5-	1.0	0	11	0.0	0.0	0.0	0.0	
1.0-	1.5	0	41	0.0	1.0-	1.5	2	41	4.9	1.0-	1.5	0	41	4.9	0.0	0.0	1.0-	1.5	0	41	0.0	41	0.0	
1.5-	2.0	1	47	2.1	1.5-	2.0	7	47	14.9	1.5-	2.0	7	47	14.9	14.9	14.9	1.5-	2.0	0	0	47	0.0	0.0	
2.0-	2.5	0	19	0.0	2.0-	2.5	0	19	0.0	2.0-	2.5	7	19	36.8	36.8	36.8	2.0-	2.5	1	19	19	5.3	5.3	
2.5-	3.0	0	16	0.0	2.5-	3.0	4	16	25.0	2.5-	3.0	4	16	25.0	25.0	25.0	2.5-	3.0	3	16	16	19.8	19.8	
3.0-	3.5	0	19	0.0	3.0-	3.5	6	19	31.6	3.0-	3.5	6	19	31.6	31.6	31.6	3.0-	3.5	5	19	19	26.3	26.3	
3.5-	4.0	0	40	0.0	3.5-	4.0	14	40	35.0	3.5-	4.0	14	40	35.0	35.0	35.0	3.5-	4.0	15	40	40	37.5	37.5	
4.0-	4.5	1	45	2.2	4.0-	4.5	19	45	42.2	4.0-	4.5	19	45	42.2	42.2	42.2	4.0-	4.5	15	45	45	33.3	33.3	
4.5-	5.0	0	34	0.0	4.5-	5.0	8	34	23.5	4.5-	5.0	8	34	23.5	23.5	23.5	4.5-	5.0	20	34	34	58.8	58.8	
5.0-	5.5	0	149	0.0	5.0-	5.5	34	149	22.8	5.0-	5.5	34	149	22.8	22.8	22.8	5.0-	5.5	91	149	149	61.1	61.1	
5.5-	6.0	0	99	0.0	5.5-	6.0	25	99	25.3	5.5-	6.0	25	99	25.3	25.3	25.3	5.5-	6.0	60	99	99	60.6	60.6	
6.0-	7.0	0	60	0.0	6.0-	7.0	19	60	28.8	6.0-	7.0	19	60	28.8	28.8	28.8	6.0-	7.0	36	60	66	54.5	54.5	
7.0-	8.0	0	124	0.0	7.0-	8.0	41	124	33.1	7.0-	8.0	41	124	33.1	33.1	33.1	7.0-	8.0	46	124	124	37.1	37.1	
8.0-	10.0	1	442	0.2	8.0-	10.0	142	442	32.1	8.0-	10.0	142	442	32.1	32.1	32.1	8.0-	10.0	170	442	442	38.5	38.5	
10.0-	12.0	1	468	0.2	10.0-	12.0	226	468	48.3	10.0-	12.0	226	468	48.3	48.3	48.3	10.0-	12.0	70	468	468	15.0	15.0	
12.0-	14.0	0	154	0.0	12.0-	14.0	46	154	29.9	12.0-	14.0	46	154	29.9	29.9	29.9	12.0-	14.0	36	154	154	23.4	23.4	
14.0-	16.0	0	109	0.0	14.0-	16.0	32	109	29.4	14.0-	16.0	32	109	29.4	29.4	29.4	14.0-	16.0	29	109	109	26.6	26.6	
16.0-	18.0	0	62	0.0	16.0-	18.0	14	62	22.6	16.0-	18.0	14	62	22.6	22.6	22.6	16.0-	18.0	10	62	62	16.1	16.1	
18.0-	20.0	0	73	0.0	18.0-	20.0	15	73	20.5	18.0-	20.0	15	73	20.5	20.5	20.5	18.0-	20.0	11	73	73	15.1	15.1	
20.0-	25.0	0	115	0.0	20.0-	25.0	13	115	11.3	20.0-	25.0	13	115	11.3	11.3	11.3	20.0-	25.0	6	115	115	5.2	5.2	
25.0-	30.0	0	69	0.0	25.0-	30.0	11	69	15.9	25.0-	30.0	11	69	15.9	15.9	15.9	25.0-	30.0	8	69	69	11.6	11.6	
30.0-	40.0	0	28	0.0	30.0-	40.0	2	28	7.1	30.0-	40.0	2	28	7.1	7.1	7.1	30.0-	40.0	3	28	28	10.7	10.7	
40.0-	50.0	0	6	0.0	40.0-	50.0	1	6	16.7	40.0-	50.0	1	6	16.7	16.7	16.7	40.0-	50.0	0	6	6	0.0	0.0	
50.0-	60.0	0	3	0.0	50.0-	60.0	0	3	0.0	50.0-	60.0	0	3	0.0	0.0	0.0	50.0-	60.0	1	3	3	33.3	33.3	
60.0-	80.0	0	1	0.0	60.0-	80.0	0	1	0.0	60.0-	80.0	0	1	0.0	0.0	0.0	60.0-	80.0	0	1	1	0.0	0.0	
80.0-	100.0	0	2	0.0	80.0-	100.0	0	2	0.0	80.0-	100.0	0	2	0.0	0.0	0.0	80.0-	100.0	0	2	2	0.0	0.0	
100.0-	125.0	0	0	0.0	100.0-	125.0	0	0	0.0	100.0-	125.0	0	0	0.0	0.0	0.0	100.0-	125.0	0	0	0	0.0	0.0	
		4					688					688							636					

SEP 22, 1983

OUTSIDE UNSH

HIRUSHIMA

GROUPS PERCENT INJURY-- BURNS

NO MECH

MOD RAD

LIGHT BURNS

MJD BURNS

SEVERE BURNS

CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT
0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0
1.0- 1.5	0	41	0.0	1.0- 1.5	2	41	4.9	1.0- 1.5	0	41	0.0
1.5- 2.0	1	47	2.1	1.5- 2.0	7	47	14.9	1.5- 2.0	0	47	0.0
2.0- 2.5	0	19	0.0	2.0- 2.5	7	19	16.8	2.0- 2.5	1	19	5.3
2.5- 3.0	0	16	0.0	2.5- 3.0	4	16	25.0	2.5- 3.0	3	16	18.8
3.0- 3.5	0	19	0.0	3.0- 3.5	6	19	31.6	3.0- 3.5	5	19	26.3
3.5- 4.0	0	40	0.0	3.5- 4.0	14	40	35.0	3.5- 4.0	15	40	37.5
4.0- 4.5	1	45	2.2	4.0- 4.5	18	45	40.0	4.0- 4.5	15	45	33.3
4.5- 5.0	0	34	0.0	4.5- 5.0	8	34	23.5	4.5- 5.0	20	34	58.8
5.0- 5.5	0	149	0.0	5.0- 5.5	33	149	22.1	5.0- 5.5	90	149	60.4
5.5- 6.0	0	99	0.0	5.5- 6.0	25	99	25.3	5.5- 6.0	63	99	60.6
6.0- 6.5	0	66	0.0	6.0- 6.5	19	66	23.8	6.0- 6.5	37	66	56.1
6.5- 7.0	0	124	0.0	6.5- 7.0	47	124	37.9	6.5- 7.0	49	124	39.5
7.0- 8.0	0	442	0.2	7.0- 8.0	152	442	34.4	7.0- 8.0	174	442	39.4
8.0- 10.0	1	468	0.2	8.0- 10.0	284	468	60.7	8.0- 10.0	86	468	18.4
10.0- 12.0	1	154	0.0	10.0- 12.0	58	154	37.7	10.0- 12.0	42	154	27.3
12.0- 14.0	0	109	0.0	12.0- 14.0	38	109	34.9	12.0- 14.0	30	109	27.5
14.0- 16.0	0	62	0.0	14.0- 16.0	25	62	40.3	14.0- 16.0	13	62	21.0
16.0- 18.0	0	73	0.0	16.0- 18.0	23	73	31.5	16.0- 18.0	14	73	19.2
18.0- 20.0	0	115	0.0	18.0- 20.0	39	115	33.9	18.0- 20.0	14	115	12.2
20.0- 25.0	0	69	0.0	20.0- 25.0	18	69	26.1	20.0- 25.0	11	69	15.9
25.0- 30.0	0	28	0.0	25.0- 30.0	4	28	14.3	25.0- 30.0	5	28	17.9
30.0- 40.0	0	6	0.0	30.0- 40.0	1	6	16.7	30.0- 40.0	0	6	0.0
40.0- 50.0	0	3	0.0	40.0- 50.0	0	3	0.0	40.0- 50.0	2	3	66.7
50.0- 60.0	0	1	0.0	50.0- 60.0	0	1	0.0	50.0- 60.0	0	1	0.0
60.0- 80.0	0	2	0.0	60.0- 80.0	0	2	0.0	60.0- 80.0	0	2	0.0
80.0- 100.0	0	0	0.0	80.0- 100.0	0	0	0.0	80.0- 100.0	0	0	0.0
100.0- 125.0	0	0	0.0	100.0- 125.0	0	0	0.0	100.0- 125.0	0	0	0.0
	4				832				686		

SIP 22, 1983

MOD RAD

BURNS

HIROSHIMA

OUTSIDE UNSH

SIP 22, 1983

LIGHT BURNS

MOD BURNS

SEVERE BURNS

LIGHT BURNS			MOD BURNS			SEVERE BURNS		
CAL	CASES	TOTAL	CAL	CASES	TOTAL	CAL	CASES	TOTAL
0.5- 1.0	0	11	0.5- 1.0	0	11	0.5- 1.0	0	11
1.0- 1.5	0	41	1.0- 1.5	2	41	1.0- 1.5	0	41
1.5- 2.0	0	47	1.5- 2.0	7	47	1.5- 2.0	0	47
2.0- 2.5	0	19	2.0- 2.5	7	19	2.0- 2.5	1	19
2.5- 3.0	0	16	2.5- 3.0	4	16	2.5- 3.0	3	16
3.0- 3.5	0	19	3.0- 3.5	6	19	3.0- 3.5	5	19
3.5- 4.0	0	40	3.5- 4.0	14	40	3.5- 4.0	15	40
4.0- 4.5	1	45	4.0- 4.5	18	45	4.0- 4.5	15	45
4.5- 5.0	0	34	4.5- 5.0	8	34	4.5- 5.0	20	34
5.0- 5.5	0	149	5.0- 5.5	34	149	5.0- 5.5	93	149
5.5- 6.0	0	93	5.5- 6.0	26	99	5.5- 6.0	63	99
6.0- 7.0	0	66	6.0- 7.0	19	66	6.0- 7.0	37	66
7.0- 8.0	0	124	7.0- 8.0	47	124	7.0- 8.0	50	124
8.0- 10.0	1	442	8.0- 10.0	154	442	8.0- 10.0	174	442
10.0- 12.0	1	468	10.0- 12.0	284	468	10.0- 12.0	83	468
12.0- 14.0	0	154	12.0- 14.0	58	154	12.0- 14.0	42	154
14.0- 16.0	0	109	14.0- 16.0	38	109	14.0- 16.0	31	109
16.0- 18.0	0	62	16.0- 18.0	25	62	16.0- 18.0	13	62
18.0- 20.0	0	73	18.0- 20.0	24	73	18.0- 20.0	15	73
20.0- 25.0	0	115	20.0- 25.0	39	115	20.0- 25.0	14	115
25.0- 30.0	1	67	25.0- 30.0	18	69	25.0- 30.0	11	69
30.0- 40.0	0	28	30.0- 40.0	4	28	30.0- 40.0	5	28
40.0- 50.0	0	6	40.0- 50.0	1	6	40.0- 50.0	0	6
50.0- 60.0	0	3	50.0- 60.0	0	3	50.0- 60.0	2	3
60.0- 80.0	0	1	60.0- 80.0	0	1	60.0- 80.0	0	1
80.0- 100.0	0	2	80.0- 100.0	0	2	80.0- 100.0	0	2
100.0-125.0	0	0	100.0-125.0	0	0	100.0-125.0	0	0
	5			837			701	

SEP 22, 1983	OUTSIDE UNSH			HIROSHIMA			GROUPS PERCENT INJURY-- BURNS			MOD MECH			MOD RAD		
	LIGHT BURNS			MOD BURNS			SEVERE BURNS								
	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL
0.5-	1.0	0	11	0.0	0.5-	1.0	0	11	0.0	0.5-	1.0	0	11	0	11
1.0-	1.5	0	41	0.0	1.0-	1.5	2	41	4.9	1.0-	1.5	0	41	0	41
1.5-	2.0	1	47	2.1	1.5-	2.0	7	47	14.9	1.5-	2.0	0	47	0	47
2.0-	2.5	0	19	0.0	2.0-	2.5	7	19	36.8	2.0-	2.5	1	19	5.3	19
2.5-	3.0	0	16	0.0	2.5-	3.0	4	16	25.0	2.5-	3.0	3	16	18.8	16
3.0-	3.5	0	19	0.0	3.0-	3.5	6	19	31.6	3.0-	3.5	7	19	36.8	19
3.5-	4.0	0	40	0.0	3.5-	4.0	15	40	37.5	3.5-	4.0	16	40	40.0	40
4.0-	4.5	1	45	2.2	4.0-	4.5	18	45	40.0	4.0-	4.5	17	45	37.8	45
4.5-	5.0	0	34	0.0	4.5-	5.0	11	34	32.4	4.5-	5.0	22	34	64.7	34
5.0-	5.5	0	149	0.0	5.0-	5.5	39	149	26.2	5.0-	5.5	100	149	67.1	149
5.5-	6.0	0	99	0.0	5.5-	6.0	29	99	29.3	5.5-	6.0	64	99	64.6	99
6.0-	7.0	0	86	0.0	6.0-	7.0	19	86	28.8	6.0-	7.0	37	86	59.1	86
7.0-	8.0	0	124	0.0	7.0-	8.0	54	124	43.5	7.0-	8.0	49	124	39.5	124
8.0-	10.0	1	442	0.2	8.0-	10.0	172	442	38.9	8.0-	10.0	139	442	42.8	442
10.0-	12.0	3	468	0.6	10.0-	12.0	316	468	67.5	10.0-	12.0	92	468	19.7	92
12.0-	14.0	0	154	0.0	12.0-	14.0	78	154	50.6	12.0-	14.0	47	154	30.5	47
14.0-	16.0	0	107	0.0	14.0-	16.0	45	107	41.3	14.0-	16.0	34	107	31.2	34
16.0-	18.0	0	62	0.0	16.0-	18.0	31	62	50.0	16.0-	18.0	15	62	24.2	15
18.0-	20.0	0	73	0.0	18.0-	20.0	27	73	37.0	18.0-	20.0	15	73	20.5	15
20.0-	25.0	0	115	0.0	20.0-	25.0	47	115	40.9	20.0-	25.0	17	115	14.8	17
25.0-	30.0	0	69	0.0	25.0-	30.0	21	69	30.4	25.0-	30.0	13	69	18.8	13
30.0-	40.0	0	28	0.0	30.0-	40.0	7	28	25.0	30.0-	40.0	7	28	25.0	7
40.0-	50.0	0	6	0.0	40.0-	50.0	1	6	16.7	40.0-	50.0	0	6	0.0	0
50.0-	60.0	0	3	0.0	50.0-	60.0	0	3	0.0	50.0-	60.0	2	3	66.7	2
60.0-	80.0	0	1	0.0	60.0-	80.0	0	1	0.0	60.0-	80.0	0	1	0.0	0
80.0-	100.0	0	2	0.0	80.0-	100.0	1	2	50.0	80.0-	100.0	1	2	50.0	1
100.0-	125.0	0	0	++++	100.0-	125.0	0	0	++++	100.0-	125.0	0	0	++++	0
		6					957					750			

SEP 22, 1983	OUTSIDE UNSH			HIRUSHIMA			GROUPS PERCENT INJURY-- BURNS			SEVERE MECH			MOD RAD					
LIGHT BURNS													SEVERE BURNS					
CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT			
0.5-	3	11	0.0	0.5-	0	11	0.0	0.5-	0	11	0.0	0.5-	0	11	0.0			
1.0-	0	41	0.0	1.0-	2	41	4.9	1.0-	2	41	4.9	1.0-	0	41	0.0			
1.5-	1	47	2.1	1.5-	7	47	14.9	1.5-	7	47	14.9	1.5-	0	47	0.0			
2.0-	0	19	0.0	2.0-	7	19	36.8	2.0-	7	19	36.8	2.0-	1	19	5.3			
2.5-	0	16	0.0	2.5-	6	16	25.0	2.5-	6	16	25.0	2.5-	3	16	18.8			
3.0-	0	19	0.0	3.0-	6	19	31.6	3.0-	6	19	31.6	3.0-	5	19	26.3			
3.5-	0	40	0.0	3.5-	14	40	35.0	3.5-	14	40	35.0	3.5-	15	40	37.5			
4.0-	1	45	2.2	4.0-	19	45	42.2	4.0-	19	45	42.2	4.0-	15	45	33.3			
4.5-	0	34	0.0	4.5-	8	34	23.5	4.5-	8	34	23.5	4.5-	20	34	58.8			
5.0-	0	149	0.0	5.0-	34	149	22.8	5.0-	34	149	22.8	5.0-	91	149	61.1			
5.5-	0	99	0.0	5.5-	25	99	25.3	5.5-	25	99	25.3	5.5-	60	99	60.6			
6.0-	0	66	0.0	6.0-	19	66	28.8	6.0-	19	66	28.8	6.0-	37	66	56.1			
7.0-	0	124	0.0	7.0-	47	124	37.9	7.0-	47	124	37.9	7.0-	50	124	40.3			
8.0-	1	442	0.2	8.0-	153	442	34.6	8.0-	153	442	34.6	8.0-	176	442	39.8			
10.0-	1	468	0.2	10.0-	285	468	60.9	10.0-	285	468	60.9	10.0-	86	468	18.4			
12.0-	0	154	0.0	12.0-	58	154	37.7	12.0-	58	154	37.7	12.0-	44	154	28.6			
14.0-	0	109	0.0	14.0-	38	109	34.9	14.0-	38	109	34.9	14.0-	30	109	27.5			
16.0-	0	62	0.0	16.0-	25	62	40.3	16.0-	25	62	40.3	16.0-	13	62	21.0			
18.0-	0	73	0.0	18.0-	23	73	31.5	18.0-	23	73	31.5	18.0-	14	73	19.2			
20.0-	0	115	0.0	20.0-	39	115	33.9	20.0-	39	115	33.9	20.0-	14	115	12.2			
25.0-	0	69	0.0	25.0-	18	69	26.1	25.0-	18	69	26.1	25.0-	11	69	15.9			
30.0-	0	28	0.0	30.0-	4	28	14.3	30.0-	4	28	14.3	30.0-	5	28	17.9			
40.0-	0	6	0.0	40.0-	1	6	16.7	40.0-	1	6	16.7	40.0-	0	6	0.0			
50.0-	0	3	0.0	50.0-	0	3	0.0	50.0-	0	3	0.0	50.0-	2	3	66.7			
60.0-	0	1	0.0	60.0-	0	1	0.0	60.0-	0	1	0.0	60.0-	0	1	0.0			
80.0-	0	2	0.0	80.0-	0	2	0.0	80.0-	0	2	0.0	80.0-	0	2	0.0			
100.0-	0	0	0.0	100.0-	0	0	0.0	100.0-	0	0	0.0	100.0-	0	0	0.0			
100.0-125.0	0	0	0.0	100.0-125.0	0	0	0.0	100.0-125.0	0	0	0.0	100.0-125.0	0	0	0.0			
													692					

SEP 22, 1983

OUTSIDE UNSM

HIKOSHIMA

GROUPS PERCENT INJURY-- BURNS

NO MECH

SEVERE RAD

LIGHT BURNS

MOD BURNS

SEVERE BURNS

CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT
0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0
1.0- 1.5	0	41	0.0	1.0- 1.5	2	41	4.9	1.0- 1.5	0	41	0.0
1.5- 2.0	1	47	2.1	1.5- 2.0	7	47	14.9	1.5- 2.0	0	47	0.0
2.0- 2.5	0	19	0.0	2.0- 2.5	7	19	36.8	2.0- 2.5	1	19	5.3
2.5- 3.0	0	16	0.0	2.5- 3.0	4	16	25.0	2.5- 3.0	3	16	18.8
3.0- 3.5	0	19	0.0	3.0- 3.5	6	19	31.6	3.0- 3.5	5	19	26.3
3.5- 4.0	0	40	0.0	3.5- 4.0	14	40	35.0	3.5- 4.0	15	40	37.5
4.0- 4.5	1	45	2.2	4.0- 4.5	18	45	40.0	4.0- 4.5	15	45	33.3
4.5- 5.0	0	34	0.0	4.5- 5.0	8	34	23.5	4.5- 5.0	20	34	58.8
5.0- 5.5	0	149	0.0	5.0- 5.5	33	149	22.1	5.0- 5.5	90	149	60.4
5.5- 6.0	0	99	0.0	5.5- 6.0	25	99	25.3	5.5- 6.0	60	99	60.6
6.0- 7.0	0	66	0.0	6.0- 7.0	14	66	28.8	6.0- 7.0	37	66	56.1
7.0- 8.0	0	124	0.0	7.0- 8.0	41	124	33.1	7.0- 8.0	45	124	36.3
8.0- 10.0	1	442	0.2	8.0- 10.0	133	442	30.1	8.0- 10.0	146	442	33.0
10.0- 12.0	1	469	0.2	10.0- 12.0	219	468	46.8	10.0- 12.0	70	468	15.0
12.0- 14.0	0	154	0.0	12.0- 14.0	49	154	31.8	12.0- 14.0	36	154	23.4
14.0- 16.0	0	109	0.0	14.0- 16.0	31	109	28.4	14.0- 16.0	29	109	26.6
16.0- 18.0	0	62	0.0	16.0- 18.0	16	62	25.8	16.0- 18.0	13	62	21.0
18.0- 20.0	0	73	0.0	18.0- 20.0	19	73	26.0	18.0- 20.0	10	73	13.7
20.0- 25.0	0	115	0.0	20.0- 25.0	34	115	29.6	20.0- 25.0	10	115	8.7
25.0- 30.0	0	69	0.0	25.0- 30.0	23	69	33.3	25.0- 30.0	11	69	15.9
30.0- 40.0	0	28	0.0	30.0- 40.0	3	28	10.7	30.0- 40.0	4	28	14.3
40.0- 50.0	0	6	0.0	40.0- 50.0	1	6	16.7	40.0- 50.0	1	6	16.7
50.0- 60.0	0	3	0.0	50.0- 60.0	1	3	33.3	50.0- 60.0	1	3	33.3
60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0
80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0
100.0- 125.0	0	0	****	100.0- 125.0	0	0	****	100.0- 125.0	0	0	****

713

622

SEP 22, 1983		OUTSIDE UNSH		HIROSHIMA		GROUPS PERCENT INJURY-- BURNS		LIGHT MECH		SEVERE RAD	
		LIGHT BURNS				MOD BURNS				SEVERE BURNS	
CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT
0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0
1.0- 1.5	0	41	0.0	1.0- 1.5	2	41	4.9	1.0- 1.5	0	41	0.0
1.5- 2.0	1	47	2.1	1.5- 2.0	7	47	14.9	1.5- 2.0	0	47	0.0
2.0- 2.5	0	19	0.0	2.0- 2.5	7	19	36.8	2.0- 2.5	1	19	5.3
2.5- 3.0	0	16	0.0	2.5- 3.0	4	15	25.0	2.5- 3.0	3	16	18.8
3.0- 3.5	0	19	0.0	3.0- 3.5	6	19	31.6	3.0- 3.5	5	19	26.3
3.5- 4.0	0	40	0.0	3.5- 4.0	14	40	35.0	3.5- 4.0	15	40	37.5
4.0- 4.5	1	45	2.2	4.0- 4.5	18	45	40.0	4.0- 4.5	15	45	33.3
4.5- 5.0	0	34	0.0	4.5- 5.0	3	34	23.5	4.5- 5.0	20	34	58.8
5.0- 5.5	0	149	0.0	5.0- 5.5	34	149	22.8	5.0- 5.5	93	149	62.4
5.5- 6.0	0	99	0.0	5.5- 6.0	26	99	26.3	5.5- 6.0	63	99	63.6
6.0- 7.0	0	66	0.0	6.0- 7.0	19	66	28.8	6.0- 7.0	37	66	56.1
7.0- 8.0	0	124	0.0	7.0- 8.0	41	124	33.1	7.0- 8.0	46	124	37.1
8.0- 10.0	1	442	0.2	8.0- 10.0	135	442	30.5	8.0- 10.0	150	442	33.9
10.0- 12.0	1	468	0.2	10.0- 12.0	219	463	46.8	10.0- 12.0	71	468	15.2
12.0- 14.0	0	154	0.0	12.0- 14.0	49	154	31.8	12.0- 14.0	37	154	24.0
14.0- 16.0	0	109	0.0	14.0- 16.0	31	109	28.4	14.0- 16.0	29	109	26.6
16.0- 18.0	0	62	0.0	16.0- 18.0	16	62	25.8	16.0- 18.0	13	62	21.0
18.0- 20.0	0	73	0.0	18.0- 20.0	20	73	27.4	18.0- 20.0	10	73	13.7
20.0- 25.0	0	115	0.0	20.0- 25.0	34	115	29.6	20.0- 25.0	10	115	8.7
25.0- 30.0	1	69	1.4	25.0- 30.0	23	69	33.3	25.0- 30.0	11	69	15.9
30.0- 40.0	0	28	0.0	30.0- 40.0	3	28	10.7	30.0- 40.0	4	28	14.3
40.0- 50.0	0	6	0.0	40.0- 50.0	1	6	16.7	40.0- 50.0	1	6	16.7
50.0- 60.0	0	3	0.0	50.0- 60.0	1	3	33.3	50.0- 60.0	1	3	33.3
60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0
80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0
100.0- 125.0	0	0	****	100.0- 125.0	0	0	****	100.0- 125.0	0	0	****
		5				718				635	

SEP 22, 1983

OUTSIDE UNSH

MIKUSHIMA

GROUPS PERCENT INJURY-- BURNS

MOD MECH SEVERE RAD

LIGHT BURNS

MOD BURNS

SEVERE BURNS

CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT	CAL	CASES	TOTAL	PERCENT
0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0	0.5- 1.0	0	11	0.0
1.0- 1.5	0	41	0.0	1.0- 1.5	2	41	4.9	1.0- 1.5	0	41	0.0
1.5- 2.0	1	47	2.1	1.5- 2.0	7	47	14.9	1.5- 2.0	0	47	0.0
2.0- 2.5	0	19	0.0	2.0- 2.5	7	19	36.8	2.0- 2.5	1	19	5.3
2.5- 3.0	0	16	0.0	2.5- 3.0	4	16	25.0	2.5- 3.0	3	16	18.8
3.0- 3.5	0	19	0.0	3.0- 3.5	6	19	31.6	3.0- 3.5	7	19	36.8
3.5- 4.0	0	40	0.0	3.5- 4.0	15	40	37.5	3.5- 4.0	16	40	40.0
4.0- 4.5	1	45	2.2	4.0- 4.5	18	45	40.0	4.0- 4.5	17	45	37.8
4.5- 5.0	0	34	0.0	4.5- 5.0	11	34	32.4	4.5- 5.0	22	34	64.7
5.0- 5.5	0	149	0.0	5.0- 5.5	39	149	26.2	5.0- 5.5	100	149	67.1
5.5- 6.0	0	99	0.0	5.5- 6.0	29	99	29.3	5.5- 6.0	64	99	64.6
6.0- 7.0	0	66	0.0	6.0- 7.0	19	66	28.8	6.0- 7.0	39	66	59.1
7.0- 8.0	0	124	0.0	7.0- 8.0	43	124	38.7	7.0- 8.0	45	124	36.3
8.0- 10.0	1	442	0.2	8.0- 10.0	150	442	33.9	8.0- 10.0	159	442	36.0
10.0- 12.0	2	468	0.4	10.0- 12.0	243	468	51.9	10.0- 12.0	75	468	16.0
12.0- 14.0	0	159	0.0	12.0- 14.0	68	154	44.2	12.0- 14.0	40	154	26.0
14.0- 16.0	0	109	0.0	14.0- 16.0	37	109	33.9	14.0- 16.0	34	109	31.2
16.0- 18.0	0	62	0.0	16.0- 18.0	22	62	35.5	16.0- 18.0	13	62	21.0
18.0- 20.0	0	73	0.0	18.0- 20.0	24	73	32.9	18.0- 20.0	13	73	17.8
20.0- 25.0	0	115	0.0	20.0- 25.0	42	115	36.5	20.0- 25.0	13	115	11.3
25.0- 30.0	1	69	1.4	25.0- 30.0	30	69	43.5	25.0- 30.0	13	69	18.8
30.0- 40.0	0	28	0.0	30.0- 40.0	5	28	17.9	30.0- 40.0	7	28	25.0
40.0- 50.0	0	6	0.0	40.0- 50.0	3	6	50.0	40.0- 50.0	1	6	16.7
50.0- 60.0	0	3	0.0	50.0- 60.0	1	3	33.3	50.0- 60.0	1	3	33.3
60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0	60.0- 80.0	0	1	0.0
80.0- 100.0	0	2	0.0	80.0- 100.0	0	2	0.0	80.0- 100.0	1	2	50.0
100.0- 125.0	0	0	****	100.0- 125.0	0	0	****	100.0- 125.0	0	0	****
	6				830				684		

SEP 22, 1983	OUTSIDE UNSH			HIKOSHIMA			GROUPS			PERCENT INJURY-- BURNS			SEVERE MECH			SEVERE RAD		
CAL	LIGHT BURNS			MOD BURNS			SEVERE BURNS			CAL	SEVERE MECH			SEVERE RAD				
	CASES	TOTAL	PERCENT	CASES	TOTAL	PERCENT	CASES	TOTAL	PERCENT		CAL	CASES	TOTAL	PERCENT	CASES	TOTAL	PERCENT	
0.5- 1.0	0	11	0.0	0	11	0.0	0	11	0.0	0.5- 1.0	0	11	0.0	0	11	0.0		
1.0- 1.5	0	41	0.0	2	41	4.9	2	41	4.9	1.0- 1.5	0	41	0.0	0	41	0.0		
1.5- 2.0	1	47	2.1	7	47	14.9	7	47	14.9	1.5- 2.0	0	47	0.0	0	47	0.0		
2.0- 2.5	0	19	0.0	7	19	36.8	7	19	36.8	2.0- 2.5	1	19	5.3	1	19	5.3		
2.5- 3.0	0	16	0.0	4	16	25.0	4	16	25.0	2.5- 3.0	3	16	18.8	3	16	18.8		
3.0- 3.5	0	19	0.0	6	19	31.6	6	19	31.6	3.0- 3.5	5	19	26.3	5	19	26.3		
3.5- 4.0	0	40	0.0	14	40	35.0	14	40	35.0	3.5- 4.0	15	40	37.5	15	40	37.5		
4.0- 4.5	1	45	2.2	19	45	42.2	19	45	42.2	4.0- 4.5	15	45	33.3	15	45	33.3		
4.5- 5.0	0	34	0.0	8	34	23.5	8	34	23.5	4.5- 5.0	20	34	58.8	20	34	58.8		
5.0- 5.5	0	149	0.0	34	149	22.8	34	149	22.8	5.0- 5.5	91	149	61.1	91	149	61.1		
5.5- 6.0	0	99	0.0	25	99	25.3	25	99	25.3	5.5- 6.0	60	99	60.6	60	99	60.6		
6.0- 7.0	0	66	0.0	20	66	30.3	20	66	30.3	6.0- 7.0	37	66	56.1	37	66	56.1		
7.0- 8.0	0	124	0.0	41	124	33.1	41	124	33.1	7.0- 8.0	46	124	37.1	46	124	37.1		
8.0- 10.0	1	442	0.2	133	442	30.1	133	442	30.1	8.0- 10.0	143	442	33.5	143	442	33.5		
10.0- 12.0	1	463	0.2	220	463	47.0	220	463	47.0	10.0- 12.0	70	468	15.0	70	468	15.0		
12.0- 14.0	0	154	0.0	49	154	31.8	49	154	31.8	12.0- 14.0	37	154	24.0	37	154	24.0		
14.0- 16.0	0	109	0.0	31	109	28.4	31	109	28.4	14.0- 16.0	29	109	26.6	29	109	26.6		
16.0- 18.0	0	62	0.0	16	62	25.8	16	62	25.8	16.0- 18.0	13	62	21.0	13	62	21.0		
18.0- 20.0	0	73	0.0	19	73	26.0	19	73	26.0	18.0- 20.0	10	73	13.7	10	73	13.7		
20.0- 25.0	0	115	0.0	35	115	30.4	35	115	30.4	20.0- 25.0	10	115	8.7	10	115	8.7		
25.0- 30.0	0	69	0.0	23	69	33.3	23	69	33.3	25.0- 30.0	11	69	15.9	11	69	15.9		
30.0- 40.0	0	28	0.0	3	28	10.7	3	28	10.7	30.0- 40.0	4	28	14.3	4	28	14.3		
40.0- 50.0	0	6	0.0	1	6	16.7	1	6	16.7	40.0- 50.0	1	6	16.7	1	6	16.7		
50.0- 60.0	0	3	0.0	1	3	33.3	1	3	33.3	50.0- 60.0	1	3	33.3	1	3	33.3		
60.0- 80.0	0	1	0.0	0	1	0.0	0	1	0.0	60.0- 80.0	0	1	0.0	0	1	0.0		
80.0- 100.0	0	2	0.0	0	2	0.0	0	2	0.0	80.0- 100.0	0	2	0.0	0	2	0.0		
100.0- 125.0	0	0	++++	0	0	++++	0	0	++++	100.0- 125.0	0	0	++++	0	0	++++		
718																		
627																		

627

718

4

APPENDIX B

SUMMARY COUNTS OF EACH INJURY SYMPTOM

Hiroshima Outside Unshielded
Hiroshima Wood Shielded - Outside
Hiroshima Wood Shielded - Inside
Hiroshima Wood Shielded - Total
Nagasaki Wood Shielded - Outside
Nagasaki Wood Shielded - Inside
Nagasaki Wood Shielded - Total

JAN 26, 1984

HIROSHIMA WOOD SHIELDED--INSIDE-INJURY/SYMPTOMS SUMMARY

101 REC: 12776

MC BN TOTAL		V O N I T		CLARRHEA		DIA		MALS		GING & PHAR		NGP		PURP		PEI		SCALP		EPI		REPRC		FEVER		MAJOR		RBC		HEND		WBC		MD SP	
ONSET		OUR		ONSET		OUR		ONSET		OUR		ONSET		OUR		ONSET		OUR		ONSET		OUR		ONSET		OUR		ONSET		OUR		ONSET		OUR	
N	N	4989	431	430	946	945	260	604	403	406	11	384	380	459	459	461	645	597	181	248	542	34													
		4939	4938	4931	4930	4925	1707	4960	4958	4719	4960	4957	4956	4956	4956	4915	1613	181	249	542	3927														
N	LT	15	1	1	4	4	5	5	5	5	0	1	1	5	5	5	6	3	6	7	1														
		15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12														
N	MD	447	84	84	124	123	36	101	63	63	1	58	58	96	96	53	134	126	21	35	59	5													
		425	426	423	422	422	426	171	431	431	400	431	431	431	431	431	415	214	21	35	59	113													
N	SV	72	11	11	25	25	5	24	9	9	0	5	5	16	16	14	23	22	6	15	19	1													
		70	70	71	71	71	70	47	71	71	68	71	71	72	72	45	71	54	6	15	19	34													
N	TL	5523	527	526	1039	1097	301	734	485	483	12	448	444	576	576	533	808	751	211	304	626	41													
		5449	5449	5440	5438	5438	5436	1540	5477	5475	5202	5477	5474	5474	5474	1703	5416	1096	211	305	626	41													
=====																																			
LT	N	158	18	18	62	62	15	76	29	29	0	14	14	16	16	52	40	34	12	40	57	2													
		157	157	158	159	159	158	157	158	158	157	158	158	159	159	154	156	156	12	40	57	152													
LT	LT	3	1	1	1	1	3	3	3	3	0	0	0	2	2	0	2	2	0	1	3	0													
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	1	3	1													
LT	MD	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0													
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	1	3	3													
LT	SV	4	0	0	3	3	0	2	2	2	0	0	0	0	0	0	2	2	1	1	3	0													
		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1	1	3	4													
LT	TL	168	19	19	66	66	17	81	33	33	0	14	14	18	18	56	44	38	13	43	66	2													
		167	167	168	168	168	168	167	168	168	167	168	168	168	168	164	166	166	13	43	66	160													
=====																																			
MD	N	5925	1071	1071	1737	1729	450	1227	888	886	5	887	879	1181	1182	686	1656	1580	160	343	575	63													
		5817	5836	5831	5825	5825	5819	2203	5858	5856	5306	5866	5859	5850	5851	1793	5750	2480	160	349	575	1													
MD	LT	12	0	0	7	7	0	8	6	6	0	1	1	5	5	5	5	3	0	3	6	0													
		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	0	3	6	11													
MD	MD	454	143	143	172	172	39	147	117	117	6	104	103	182	182	76	221	218	14	30	35	16													
		443	443	444	444	444	438	157	442	442	367	445	445	444	444	164	430	276	14	30	35	129													
MD	SV	59	12	11	19	19	7	23	13	13	0	9	9	19	18	14	29	26	4	4	7	0													
		58	57	58	58	58	58	35	57	57	49	58	58	59	59	34	58	44	4	4	7	31													
MD	TL	6450	1225	1225	1935	1927	496	1405	1024	1022	15	1001	992	1386	1387	791	1911	1927	178	385	623	79													
		6350	6348	6345	6339	6339	6327	2447	6369	6367	5734	6381	6374	6365	6366	2003	6250	2912	178	385	623	1622													
=====																																			

JAN 26, 1984

HIRUSHIMA WOOD SHIELDED--INSIDE-INJURY/SYMPTOMS SUMMARY

TOT REC: 12776

MC BN TOTAL-V O M I T		DIARRHEA		9DIA		MALIS		GING & PHA		RNCIP		PURP		PET		SCALP		EPIL		PEPRC		FEVER		PAJOF		RBC		MEMO		WBC		MO SP		DISC			
ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET	
SV N	567	122	121	225	52	326	145	145	562	530	559	99	98	153	153	156	242	244	77	155	232	44	372														
SV LT	4	1	1	2	2	1	2	1	1	0	1	1	1	2	2	1	2	2	0	2	3	0															
SV MD	50	10	10	29	28	3	20	20	1	10	10	10	10	19	19	14	25	21	6	14	21	4															
SV SV	14	4	4	5	5	1	10	6	6	0	3	3	3	3	3	6	7	6	0	5	5	1															
SV TL	635	137	136	261	260	57	266	172	172	11	113	112	112	177	177	276	273	83	206	261	49																
TL N	11639	1442	1640	2970	2961	777	2233	1470	1466	30	1394	1371	1809	1810	1355	2583	2455	430	821	1406	143																
TL LT	34	3	3	14	14	2	18	14	14	0	3	3	14	14	11	15	13	3	12	19	1																
TL MD	954	237	237	325	323	79	276	200	200	8	172	171	297	297	145	380	365	41	80	114	25																
TL SV	149	27	26	52	52	13	59	30	30	0	17	17	37	37	36	61	56	11	25	33	2																
TL TL	12776	1909	1906	3361	3350	871	2586	1714	1710	38	1576	1562	2157	2158	1547	3039	2889	485	934	1576	171																
		12595	12593	12581	12572	12556	5096	12644	12640	11695	12653	12643	12635	12636	4371	12459	5410	485	940	1576	6281																

JAN 26, 1984

HTRCSHIMA WOOD SHIELD O--TOTAL--INJURY/SYMPTOMS SUMMARY

TOT REC: 14 919

MC BN TOTAL		V O M I T		DIARRHEA		ABDIA		PALS		GING & PHARANGIP		P J R P		PET		SCALP		EPIL		REPRO		FEVER		MAJOR		RBC		HEMO		WBC		MO		SP			
ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR		ONSET		DUR			
535		1143		1141		315		719		505		502		12		470		466		574		574		540		796		732		199		279		622		35	
5967		5862		5860		5849		2018		5893		5890		5853		5890		5890		5887		5887		1764		5840		1916		199		280		622		4615	
1		24		24		0		24		24		7		0		1		1		6		6		7		7		7		3		8		10		1	
137		136		177		176		55		172		111		3		98		98		150		149		90		219		203		45		68		121		9	
638		637		635		634		304		647		647		597		645		645		645		644		266		625		353		45		70		121		214	
17		17		45		45		8		52		15		0		7		7		25		25		28		46		42		10		26		30		3	
114		114		115		115		89		115		115		112		115		115		116		116		85		115		95		10		26		30		74	
690		687		1373		1370		378		951		636		15		576		572		755		754		665		1068		984		257		381		783		42	
6643		6641		6636		6633		6624		2435		6679		6326		6677		6674		6672		6671		2135		6604		2392		257		384		783		4	
27		27		27		27		27		27		27		27		27		27		27		27		27		27		27		27		27		27		27	
209		209		209		209		209		209		209		209		209		209		209		209		209		209		209		209		209		209		209	
210		210		210		210		210		210		210		210		210		210		210		210		210		210		210		210		210		210		210	
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1209		1208		1969		1958		510		1383		1022		1020		11		1026		1017		1369		1370		760		1884		1793		169		379		622	
6543		6542		6538		6529		6519		2453		6569		6567		5920		6574		6566		6559		6560		1978		6449		2773		169		379		622	
15		15		15		15		15		15		15		15		15		15		15		15		15		15		15		15		15		15		15	
165		166		202		202		46		176		144		8		122		121		213		213		91		259		254		19		39		50		17	
529		529		531		531		525		240		529		529		438		531		531		531		531		204		515		323		39		50		160	
13		12		24		24		7		31		15		15		0		10		21		21		16		36		31		4		6		10		0	
68		67		68		68		68		44		67		67		59		68		69		69		43		68		53		4		6		10		39	
1388		1387		2263		2152		563		1600		1189		1187		19		1159		1149		1609		1610		873		2186		2083		192		426		688	
7155		7153		7152		7143		7127		2752		7180		7178		6432		7188		7180		7174		7175		2240		7047		3164		192		427		688	

NOT REC: 14319

MC BN TOTAL V O M I T • DIARRHEA • BDIA • NALS • GING & PHAR • NGIP • PURP / PET • SCALP EPIL • REPRUG • FEVER • MAJOR • RBC • MEMO • MAC • MU SP • JNSET DUR • ONSET • ANCR • ONSET DUR • ONSET • ANOR • ONSET • COMPL • LMST • LMST • L • L • ST • DISC • DISC

SV	N	606	129	127	239	239	54	143	155	155	11	111	110	161	161	161	161	256	260	79	191	239	45
		599	599	599	600	600	596	515	600	600	586	557	597	600	600	600	472	599	508	79	191	239	391
SV	LT	6	2	2	3	3	1	4	2	2	0	2	2	3	3	3	3	3	3	1	2	4	0
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	1	3	4	4
SV	MD	56	11	11	32	31	5	32	23	23	1	12	12	22	22	22	15	27	23	6	14	22	4
		56	56	56	54	54	56	44	56	56	51	56	56	55	55	55	43	55	42	6	14	22	32
SV	SV	16	4	4	5	5	1	12	6	6	0	3	3	3	3	3	8	8	8	0	6	6	1
		16	16	16	15	15	15	14	16	16	15	16	16	15	15	15	14	16	15	0	6	6	13
SV	TL	604	145	144	279	278	61	391	186	186	12	129	127	189	189	189	189	294	294	86	213	271	51
		677	677	677	676	675	673	579	678	678	638	675	675	676	676	676	535	676	571	86	214	271	271

[illegible]

JAN 30, 1984

NAGASAKI WCCU SHIELD-OUTSIDE-INJURY/SYMPTOMS SUMMARY

TOT REC: 348

MC BN TOTAL		V O M I T		DIARRHEA		ABDIA +MALS		GING & PHAR		NGCP +PURP /		PET		+SCALP EPIL		+REPRO+FEVER+MAJOR		RBC		+HEMO		+WBC		+HOSP			
+ONSET		DUR		+ONSET		DUR		+ONSET		DUR		+ONSET		DUR		+ONSET		DUR		+ONSET		DUR		+ONSET		DUR	
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JAN 30, 1984

NAGASAKI WOOD SHIELDED-OUTSIDE-INJURY/SYMPTOMS SUMMARY

TOT REC: 348

MC 8N TOTAL+V O M I T * DIARRHEA * 8DIA * HALS * GING C PHAR*NGEP *PURP / PET *SCALP EPIL *REPRO*FEVER*MAJOR* RBC *MEMO * WBC *MCSP
 *ONSET OUR *ONSET OUR *ONSET*ANJR *ONSET OUR *ONSET*ONSET OUR *ONSET*ONSET*COMPL*LMST *LMST *LMST *DISC

SV N	10	1	1	4	4	0	5	1	1	0	0	0	3	3	2	2	2	3	4	4	1
		10	10	10	10	10	10	10	10	9	10	10	10	10	10	10	10	3	4	4	7
SV LT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SV MD	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
SV SV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SV TL	11	1	1	4	4	0	6	1	1	0	0	0	3	3	2	3	3	3	4	4	1
		11	11	11	11	11	11	11	11	10	11	11	11	11	11	11	11	3	4	4	7

TL N	270	36	36	69	69	17	52	32	32	1	17	17	27	26	61	45	52	23	19	25	3
		267	267	267	267	267	198	267	267	254	269	269	268	268	199	265	215	23	21	25	193
TL LT	3	0	0	1	1	0	3	3	3	0	0	0	0	0	0	1	1	1	1	1	0
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	1	1	3
TL MD	55	8	21	21	54	3	20	17	17	3	10	10	16	16	9	23	25	8	10	10	0
		54	54	54	54	54	40	54	54	49	54	54	54	54	40	54	45	8	10	10	25
TL SV	20	4	11	11	20	0	14	3	3	0	3	3	5	5	2	8	10	6	11	12	0
		20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	6	11	12	11
TL TL	348	48	102	102	344	20	87	52	52	4	30	30	48	47	72	77	88	38	41	48	3
		344	344	344	344	344	261	344	344	326	346	346	345	345	262	342	283	38	43	48	232

101 REC: 4702

SV TL	255	84	84	102	21	153	82	82	5	43	43	78	78	61	85	97	87	112	129	14
	253	253	253	255	255	255	255	255	251	254	254	255	255	255	254	255	87	112	129	132

[illegible]

JAN 30, 1984

NAGASAKI WOOD SHIELDED--TOTAL--INJURY/SYMPOMS SUMMARY

101 REC: 505C

MC BN	TOTAL	V O M I T	DIARRHEA	BOIA	HALS	AGING	PHAR	NGCP	PURP	PET	SCALP	EPIL	REPRC	FEVER	MAJUK	RBC	MEMO	LABC	HCSP
		DUR	ONSET	DUR	ONSET	DUR	ONSET	DUR	ONSET	DUR	ONSET	DUR	ONSET	DUR	ONSET	DUR	ONSET	DUR	ONSET
N	2534	196	196	557	121	409	272	272	12	122	122	167	432	249	269	190	220	267	6
N	2518	2518	2518	2522	1767	2521	2521	2484	2525	2525	2521	2521	1782	2522	1836	190	221	267	1914
N LT	30	11	11	15	15	16	9	9	1	6	6	9	7	9	11	12	13	14	3
N LT	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	12	13	14	18
N MD	270	51	51	87	87	93	63	63	4	30	30	58	36	74	77	49	66	73	4
N MD	266	266	268	268	181	267	267	254	268	268	262	262	181	266	210	49	66	73	113
N SV	110	30	30	39	39	1	56	27	0	8	8	40	24	43	45	42	48	48	10
N SV	110	110	110	110	110	110	110	109	110	110	110	110	110	110	110	42	48	48	75
N TL	2944	288	288	698	138	574	371	371	17	166	166	274	499	375	402	293	347	402	23
N TL	2923	2923	2927	2526	2930	2088	2928	2928	2877	2933	2933	2923	2103	2928	2186	293	348	402	2120
LT N	108	12	12	43	43	2	41	15	1	8	8	10	23	27	23	13	12	17	0
LT N	108	108	108	108	108	107	108	108	106	108	108	108	108	108	108	13	13	17	93
LT LT	2	1	1	2	2	0	1	2	0	0	0	1	1	2	1	1	1	1	0
LT LT	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	1	1	1	1
LT MD	6	2	2	3	3	0	3	3	0	2	2	2	2	1	0	0	0	1	0
LT MD	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	0	0	1	5
LT SV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT SV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT TL	116	15	15	48	48	2	45	20	1	10	10	13	26	30	29	14	13	19	0
LT TL	116	116	116	116	116	116	116	116	112	115	115	116	116	116	116	14	14	19	99
MD N	1524	343	343	538	130	387	342	342	10	219	219	306	304	177	454	462	138	169	202
MD N	1510	1510	1506	1506	1504	801	1508	1508	1367	1507	1507	1495	1495	818	1504	1032	138	169	202
MD LT	14	2	2	6	6	1	6	2	0	0	0	3	0	3	2	3	3	5	0
MD LT	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	3	3	5	11
MD MD	164	50	50	67	67	20	41	48	3	34	34	56	27	65	63	24	26	32	6
MD MD	163	163	163	163	163	163	163	164	142	162	162	162	79	160	113	24	26	32	57
MD SV	22	7	7	10	10	2	15	5	0	3	3	7	6	6	7	9	11	11	0
MD SV	22	22	22	22	22	22	22	22	22	22	22	21	22	22	22	9	11	11	12
MD TL	1724	402	402	622	621	153	449	397	13	256	256	372	369	207	528	534	174	209	250
MD TL	1709	1709	1705	1705	1703	913	1708	1708	1545	1705	1705	1693	1692	933	1700	1181	174	209	250

JAN 30, 1964

NAGASAKI WCCO SHIELDED--TOTAL--INJURY/SYMPTOMS SUMMARY

TOT REC: 5050

MC BN	TOTAL	U	M	I	T	DIARRHEA	DOIT	HALS	GING	PHAR	NGCP	PURP	PET	SCALP	EPIL	KEPRO	FEVER	MAJUN	RBC	HEMO	ABC	HCS	DISC
ONSET	OUR	ONSET	OUR	ONSET	OUR	ONSET	OUR	ONSET	OUR	ONSET	OUR	ONSET	OUR	ONSET	OUR	ONSET	OUR	ONSET	OUR	ONSET	OUR	ONSET	OUR
SV N	228	70	226	91	228	15	228	69	228	3	227	35	227	228	63	228	54	228	82	70	90	105	14
SV LT	3	2	3	1	3	0	3	1	3	0	3	2	3	228	2	228	1	228	1	2	2	2	0
SV MD	25	10	25	10	25	4	25	7	25	0	5	5	25	25	9	25	3	25	11	10	15	17	1
SV SV	10	3	10	4	10	2	7	6	10	10	1	1	10	10	7	10	5	10	6	8	9	9	0
SV TL	266	85	264	106	266	21	159	83	266	5	43	43	265	266	81	266	63	266	100	90	116	123	15

TL N	4394	621	4362	1231	4361	269	965	698	4365	26	384	4367	384	4352	546	4352	686	798	841	411	491	591	40
TL LT	49	16	48	24	49	1	25	14	49	1	8	48	8	49	15	49	9	15	15	18	19	22	3
TL MD	465	113	460	167	462	40	159	121	462	7	71	71	71	455	125	455	69	153	151	83	107	123	11
TL SV	142	40	142	53	142	5	78	38	142	2	12	12	12	142	54	142	32	55	58	59	68	68	10
TL TL	5050	790	5012	1475	5014	314	1227	871	5018	36	475	475	475	4998	740	4998	795	1021	1065	571	685	804	64

APPENDIX C

HIROSHIMA BURN AND MECHANICAL INJURIES RADIATION SYMPTOMS

(All thermal, radiation, and pressure calculations
used old weapon yields relative to T65 radiation data.)

Hiroshima - Outside Unshielded

MAR 27, 1984

SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED
NO BURNS NO FECH

TOTAL CASES: 321

LOW RADIATION

CAL/CM2	VOMITING FIRST DAY CASES TOTAL PERCENT	VOMITING 1 TO 5 DAYS CASES TOTAL PERCENT	VOMITING AFTER 5 DAYS CASES TOTAL PERCENT	DIARRHEA-1 TO 7 DAYS CASES TOTAL PERCENT	DIARRHEA AFTER 7 DAYS CASES TOTAL PERCENT
0.0- 0.5	0 11 C.0	0 11 0.0	0 11 0.0	2 11 18.2	1 11 9.1
0.5- 1.0	0 26 0.0	0 26 C.C	1 26 3.8	1 26 3.8	4 26 15.4
1.0- 1.5	0 51 C.0	0 51 C.C	1 51 C.C	5 51 9.8	6 51 15.7
1.5- 2.0	1 26 3.8	1 26 3.8	1 26 3.8	1 26 3.8	1 26 3.8
2.0- 2.5	1 39 4.6	1 39 2.6	1 39 2.6	4 39 10.3	7 39 17.9
2.5- 3.0	0 14 0.0	0 14 0.0	0 14 C.C	0 14 0.0	0 14 0.0
3.0- 3.5	0 8 0.0	0 8 0.0	0 8 C.C	2 8 25.0	1 8 12.5
3.5- 4.0	0 21 0.0	1 21 4.8	0 21 0.0	2 21 9.5	3 21 14.3
4.0- 4.5	0 9 0.0	0 9 C.0	0 9 C.C	2 10 20.0	2 10 20.0
4.5- 5.0	0 7 0.0	0 7 C.0	0 7 C.C	1 8 12.5	1 8 12.5
5.0- 5.5	0 7 0.0	0 7 0.0	0 7 0.0	0 7 0.0	0 7 0.0
5.5- 6.0	0 7 0.0	0 7 0.0	0 7 0.0	0 7 0.0	0 7 0.0
6.0- 7.0	0 8 0.0	0 8 0.0	0 8 25.0	0 8 0.0	0 8 0.0
7.0- 8.0	0 20 C.0	0 20 C.C	0 20 C.C	0 20 0.0	0 20 0.0
8.0- 10.0	1 33 3.0	2 33 6.1	0 33 0.0	2 33 6.1	4 33 12.1
10.0- 12.0	2 30 6.7	2 30 6.7	0 30 0.0	2 32 6.3	4 32 12.5
TOTALS:	5 317	7 317	5 317	24 321	45 321

CAL/CM2	PURPURA/PETECHIAE	SCALP EPILATION	REPRODUCTIVE PRCB-FEM	REPRODUCTIVE PRCB-MALE
0.0- 0.5	0 11 C.0	0 11 C.0	1 2 50.0	0 6 C.C
0.5- 1.0	3 26 11.5	0 26 0.0	3 13 23.1	0 13 0.0
1.0- 1.5	0 51 0.0	0 51 0.0	4 12 33.3	1 38 2.6
1.5- 2.0	0 26 0.0	0 26 0.0	8 14 57.1	0 11 0.0
2.0- 2.5	1 39 2.6	1 39 2.6	10 16 62.5	0 22 0.0
2.5- 3.0	0 14 C.0	0 14 C.C	3 7 42.9	0 7 0.0
3.0- 3.5	0 8 0.0	1 8 12.5	2 7 28.6	0 1 0.0
3.5- 4.0	0 21 C.0	1 21 4.8	7 14 50.0	0 6 0.0
4.0- 4.5	0 10 C.0	1 10 10.0	1 5 20.0	0 5 0.0
4.5- 5.0	1 8 12.5	1 8 12.5	4 25.0	3 0.0
5.0- 5.5	1 7 14.3	1 7 0.0	3 66.7	0 3 0.0
5.5- 6.0	0 7 C.0	0 7 0.0	2 4 50.0	0 1 0.0
6.0- 7.0	1 8 12.5	1 8 12.5	0 3 C.C	1 0.0
7.0- 8.0	0 20 C.0	2 20 10.0	0 2 C.0	0 8 0.0
8.0- 10.0	2 33 6.1	3 33 9.1	2 8 25.0	0 5 0.0
10.0- 12.0	2 32 6.3	2 32 6.3	3 66.7	5 40.0
TOTALS:	11 321	13 321	48 117	3 135

MAR 27, 1984		SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED NO BURNS MOD MECH			LOW RADIATION			TOTAL CASES: 75		
CAL/CM2	VOMITING FIRST DAY		VOMITING 1 TO 5 DAYS		VOMITING AFTER 5 DAYS		DIARRHEA-1 TO 7 DAYS		DIARRHEA AFTER 7 DAYS	
	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT
0.0- 0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
0.5- 1.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.0- 1.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.5- 2.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.0- 2.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.5- 3.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.0- 3.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.5- 4.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.0- 4.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.5- 5.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.0- 5.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.5- 6.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
6.0- 7.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
7.0- 8.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
8.0- 10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10.0- 12.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS:	1	74	1	74	2	74	5	75	15	75

MAR 27, 1984		SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED NO BURNS MOD MECH			LOW RADIATION			TOTAL CASES: 75		
CAL/CM2	VOMITING FIRST DAY		VOMITING 1 TO 5 DAYS		VOMITING AFTER 5 DAYS		DIARRHEA-1 TO 7 DAYS		DIARRHEA AFTER 7 DAYS	
	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT
0.0- 0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
0.5- 1.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.0- 1.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.5- 2.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.0- 2.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.5- 3.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.0- 3.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.5- 4.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.0- 4.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.5- 5.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.0- 5.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.5- 6.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
6.0- 7.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
7.0- 8.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
8.0- 10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10.0- 12.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS:	1	74	1	74	2	74	5	75	15	75

MAR 27, 1984		SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED NO BURNS MOD MECH			LOW RADIATION			TOTAL CASES: 75		
CAL/CM2	VOMITING FIRST DAY		VOMITING 1 TO 5 DAYS		VOMITING AFTER 5 DAYS		DIARRHEA-1 TO 7 DAYS		DIARRHEA AFTER 7 DAYS	
	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT
0.0- 0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
0.5- 1.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.0- 1.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.5- 2.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.0- 2.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.5- 3.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.0- 3.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.5- 4.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.0- 4.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.5- 5.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.0- 5.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.5- 6.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
6.0- 7.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
7.0- 8.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
8.0- 10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10.0- 12.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS:	1	74	1	74	2	74	5	75	15	75

MAR 27, 1984

SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED
NO BURNS SVR PECH

TOTAL CASES: 9

LOW RADIATION

CAL/CM2	VOMITING FIRST DAY CASES TOTAL PERCENT	VOMITING 1 TO 5 DAYS CASES TOTAL PERCENT	VOMITING AFTER 5 DAYS CASES TOTAL PERCENT	DIARRHEA-1 TO 7 DAYS CASES TOTAL PERCENT	DIARRHEA AFTER 7 DAYS CASES TOTAL PERCENT
0.0- 0.5	0 0	0 0	0 0	0 0	0 0
0.5- 1.0	0 0	0 0	0 0	0 0	0 0
1.0- 1.5	0 0	0 0	0 0	0 0	0 0
1.5- 2.0	0 0	0 0	0 0	0 0	0 0
2.0- 2.5	0 0	0 0	0 0	0 0	0 0
2.5- 3.0	0 0	0 0	0 0	0 0	0 0
3.0- 3.5	0 0	0 0	0 0	0 0	0 0
3.5- 4.0	0 0	0 0	0 0	0 0	0 0
4.0- 4.5	0 0	0 0	0 0	0 0	0 0
4.5- 5.0	0 0	0 0	0 0	0 0	0 0
5.0- 5.5	0 0	0 0	0 0	0 0	0 0
5.5- 6.0	0 0	0 0	0 0	0 0	0 0
6.0- 7.0	0 0	0 0	0 0	0 0	0 0
7.0- 8.0	0 0	0 0	0 0	0 0	0 0
8.0- 10.0	0 0	0 0	0 0	0 0	0 0
10.0- 12.0	0 0	0 0	0 0	0 0	0 0
TOTALS:	1 9	2 9	0 9	3 9	1 9

CAL/CM2	PURPURA/PETECHIAE	SCALP EPILATION	REPRODUCTIVE PRC9-FEM	REPRODUCTIVE PROB-MALE
0.0- 0.5	0 0	0 0	0 0	0 0
0.5- 1.0	0 0	0 0	0 0	0 0
1.0- 1.5	0 0	0 0	0 0	0 0
1.5- 2.0	0 0	0 0	0 0	0 0
2.0- 2.5	0 0	0 0	0 0	0 0
2.5- 3.0	0 0	0 0	0 0	0 0
3.0- 3.5	0 0	0 0	0 0	0 0
3.5- 4.0	0 0	0 0	0 0	0 0
4.0- 4.5	0 0	0 0	0 0	0 0
4.5- 5.0	0 0	0 0	0 0	0 0
5.0- 5.5	0 0	0 0	0 0	0 0
5.5- 6.0	0 0	0 0	0 0	0 0
6.0- 7.0	0 0	0 0	0 0	0 0
7.0- 8.0	0 0	0 0	0 0	0 0
8.0- 10.0	0 0	0 0	0 0	0 0
10.0- 12.0	0 0	0 0	0 0	0 0
TOTALS:	0 9	2 9	1 9	3 9

MAR 27, 1984

SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED
MOD BURNS NO MECH

TOTAL CASES: 955

CAL/CM2	VOMITING FIRST DAY		VOMITING 1 TO 5 DAYS		VOMITING AFTER 5 DAYS		DIARRHEA-1 TO 7 DAYS		DIARRHEA AFTER 7 DAYS	
	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT
0.0- 0.5	0	1 0.0	0	0 0.0	0	0 0.0	0	1 0.0	1	1 0.0
0.5- 1.0	0	0 0.0	0	0 0.0	0	0 0.0	0	0 0.0	0	0 0.0
1.0- 1.5	1	10 10.0	1	10 10.0	0	0 0.0	0	10 10.0	2	10 20.0
1.5- 2.0	0	0 0.0	0	0 0.0	1	15 6.7	2	15 13.3	4	15 26.7
2.0- 2.5	1	18 5.6	1	18 5.6	0	0 0.0	3	18 16.7	2	18 11.1
2.5- 3.0	7	7 0.0	0	0 0.0	7	7 0.0	0	0 0.0	0	0 0.0
3.0- 3.5	10	10 0.0	1	10 10.0	1	10 10.0	1	10 10.0	1	10 10.0
3.5- 4.0	0	0 0.0	0	0 0.0	0	0 0.0	4	23 17.4	5	23 21.7
4.0- 4.5	2	30 6.7	2	30 6.7	0	0 0.0	5	33 15.2	1	33 3.0
4.5- 5.0	0	0 0.0	1	16 6.3	0	0 0.0	5	16 31.3	2	16 12.5
5.0- 5.5	0	0 0.0	1	45 2.2	0	0 0.0	4	45 8.9	4	45 8.9
5.5- 6.0	2	41 4.9	3	41 7.3	1	41 2.4	6	43 14.0	4	43 9.3
6.0- 7.0	1	28 3.6	1	28 3.6	1	28 3.6	2	28 7.1	6	28 21.4
7.0- 8.0	3	99 3.0	5	99 5.1	2	99 2.0	5	100 5.0	17	100 17.0
8.0- 10.0	10	256 3.9	11	256 4.3	11	256 4.3	13	262 5.0	42	262 16.0
10.0- 12.0	37	320 11.6	49	320 15.3	25	320 7.8	32	331 9.7	67	331 20.2
TOTALS:	57	919	76	919	42	919	82	942	158	942

CAL/CM2	PURPURA/PECTHIAE		SCALP EPILATION		REPRODUCTIVE PROG-FEM		REPRODUCTIVE PROB-MALE	
	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT
0.0- 0.5	0	1 0.0	0	1 0.0	0	0 0.0	0	1 0.0
0.5- 1.0	0	0 0.0	0	0 0.0	0	0 0.0	0	0 0.0
1.0- 1.5	0	0 0.0	0	0 0.0	0	0 0.0	0	0 0.0
1.5- 2.0	0	0 0.0	0	0 0.0	1	8 12.5	0	0 0.0
2.0- 2.5	0	0 0.0	0	0 0.0	4	9 44.4	0	0 0.0
2.5- 3.0	0	0 0.0	0	0 0.0	1	4 25.0	0	0 0.0
3.0- 3.5	0	0 0.0	0	0 0.0	3	4 75.0	0	0 0.0
3.5- 4.0	1	23 4.3	0	0 0.0	4	10 60.0	1	13 7.7
4.0- 4.5	2	33 6.1	9	33 24.2	5	9 55.6	0	0 0.0
4.5- 5.0	0	0 0.0	1	16 6.3	2	25.0	0	0 0.0
5.0- 5.5	1	45 2.2	1	45 2.2	5	21 23.8	1	24 4.2
5.5- 6.0	0	0 0.0	7	42 16.7	5	13 38.5	1	23 4.3
6.0- 7.0	1	28 3.6	3	27 11.1	3	8 37.5	0	0 0.0
7.0- 8.0	2	103 1.9	20	103 19.4	7	16 43.8	0	0 0.0
8.0- 10.0	9	265 3.4	47	262 17.9	24	57 42.1	4	79 5.1
10.0- 12.0	21	333 6.3	86	333 25.8	25	73 34.2	2	25 8.0
TOTALS:	37	950	173	945	89	241	9	274

MAR 27, 1984

SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED
MOD BURNS SVR PECH

CAL/CM2	VOMITING FIRST DAY CASES TOTAL PERCENT	VOMITING 1 TO 5 DAYS CASES TOTAL PERCENT	VOMITING AFTER 5 DAYS CASES TOTAL PERCENT	DIARRHEA-1 TO 7 DAYS CASES TOTAL PERCENT	DIARRHEA AFTER 7 DAYS CASES TOTAL PERCENT	TOTAL CASES: 1C
0.C- 0.5	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
0.5- 1.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
1.0- 1.5	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
1.5- 2.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
2.0- 2.5	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
2.5- 3.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
3.0- 3.5	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
3.5- 4.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
4.0- 4.5	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
4.5- 5.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
5.0- 5.5	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
5.5- 6.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
6.0- 7.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
7.0- 8.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
8.0- 10.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
10.0- 12.0	0 C *****	0 C *****	0 C *****	0 C *****	0 C *****	
TOTALS:	1 10	1 10	1 10	1 10	1 10	

CAL/CM2	PURPURA/PEIECHIAE	SCALP EPILATION	REPRODUCTIVE PROR-FEM	REPRODUCTIVE PROR-MALE
0.C- 0.5	0 *****	0 *****	0 *****	0 *****
0.5- 1.0	0 *****	0 *****	0 *****	0 *****
1.0- 1.5	0 *****	0 *****	0 *****	0 *****
1.5- 2.0	0 *****	0 *****	0 *****	0 *****
2.0- 2.5	0 *****	0 *****	0 *****	0 *****
2.5- 3.0	0 *****	0 *****	0 *****	0 *****
3.0- 3.5	0 *****	0 *****	0 *****	0 *****
3.5- 4.0	0 *****	0 *****	0 *****	0 *****
4.0- 4.5	0 *****	0 *****	0 *****	0 *****
4.5- 5.0	0 *****	0 *****	0 *****	0 *****
5.0- 5.5	0 *****	0 *****	0 *****	0 *****
5.5- 6.0	0 *****	0 *****	0 *****	0 *****
6.0- 7.0	0 *****	0 *****	0 *****	0 *****
7.0- 8.0	0 *****	0 *****	0 *****	0 *****
8.0- 10.0	0 *****	0 *****	0 *****	0 *****
10.0- 12.0	0 *****	0 *****	0 *****	0 *****
TOTALS:	1 10	1 10	1 10	1 10

MAR 27, 1984				SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED				LOW RADIATION				TOTAL CASES: 10			
				HGD BURNS SVR MECH											
				VOMITING 1 TO 5 DAYS				VOMITING AFTER 5 DAYS				DIARRHEA-1 TO 7 DAYS			
				CASES TOTAL PERCENT				CASES TOTAL PERCENT				CASES TOTAL PERCENT			
CAL/CM2	VOMITING FIRST DAY	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT
0.0- 0.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
0.5- 1.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.0- 1.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.5- 2.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.0- 2.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.5- 3.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.0- 3.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.5- 4.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.0- 4.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.5- 5.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.0- 5.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.5- 6.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
6.0- 7.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
7.0- 8.0	1	1	10.0	1	10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
8.0- 10.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10.0- 12.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS:	1	1	10	1	10	0	0	0	0	0	0	1	10	1	10

				SCALP EPILATION				REPRODUCTIVE PRCB-FEM				REPRODUCTIVE PRCB-MALE			
				CASES TOTAL PERCENT				CASES TOTAL PERCENT				CASES TOTAL PERCENT			
CAL/CM2	PURPURA/PETECHIAE	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT	CASES	TOTAL PERCENT
0.0- 0.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
0.5- 1.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.0- 1.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1.5- 2.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.0- 2.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2.5- 3.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.0- 3.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3.5- 4.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.0- 4.5	1	1	10.0	1	10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4.5- 5.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.0- 5.5	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5.5- 6.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
6.0- 7.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
7.0- 8.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
8.0- 10.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10.0- 12.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS:	1	1	10	1	10	0	0	0	0	0	0	0	0	0	0

MAR 27, 1984				SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED				LOW RADIATION				TOTAL CASES: 760			
				SVR BURNS NC MECH											
				VOMITING 1 TO 5 DAYS				VOMITING AFTER 5 DAYS				DIARRHEA 1 TO 7 DAYS			
				CASES TOTAL PERCENT				CASES TOTAL PERCENT				CASES TOTAL PERCENT			
CAL/CM2	0.0-	0.5	1.0	0	0	0	0	0	0	0	0	0	0	0	0
0.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
0.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
1.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
1.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
2.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
2.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
3.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
3.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
4.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
4.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
5.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
5.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
6.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
6.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
7.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
7.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
8.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
8.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
9.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
9.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
10.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS:	69	742		82	742			27	742			78	748		

PURPURA/PECTECHE				SCALP EPILATION				REPRODUCTIVE PROB-FEM				REPRODUCTIVE PROB-MALE			
CAL/CM2	0.0-	0.5	1.0	0	0	0	0	0	0	0	0	0	0	0	0
0.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
0.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
1.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
1.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
2.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
2.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
3.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
3.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
4.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
4.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
5.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
5.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
6.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
6.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
7.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
7.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
8.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
8.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
9.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
9.5-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
10.0-	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS:	19	752		125	752			149	310			36	302		

MAR 27, 1994				SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED				LCW RADIATION				TOTAL CASES: 75			
				SVR BURNS MOD MECH											
				VOMITING 1 TO 5 DAYS				VOMITING AFTER 5 DAYS				DIARRHEA-1 TO 7 DAYS			
				CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT	
CAL/CM2	VOMITING FIRST DAY	CASES	TOTAL	CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT	
0.0- 0.5	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
0.5- 1.0	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
1.0- 1.5	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
1.5- 2.0	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
2.0- 2.5	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
2.5- 3.0	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
3.0- 3.5	0 2 0.0	0	2	0 2 0.0	0	2	0	0 2 0.0	0	2	0	0 2 0.0	0	2	0
3.5- 4.0	0 1 0.0	0	1	0 1 0.0	0	1	0	0 1 0.0	0	1	0	0 1 0.0	0	1	0
4.0- 4.5	0 5 0.0	0	5	0 5 0.0	0	5	0	0 5 0.0	0	5	0	0 5 0.0	0	5	0
4.5- 5.0	0 3 0.0	0	3	0 3 0.0	0	3	0	0 3 0.0	0	3	0	0 3 0.0	0	3	0
5.0- 5.5	3 16 18.8	3	16	3 16 18.8	3	16	0	3 16 18.8	3	16	0	3 16 18.8	3	16	0
5.5- 6.0	0 9 0.0	0	9	0 9 0.0	0	9	0	0 9 0.0	0	9	0	0 9 0.0	0	9	0
6.0- 7.0	0 3 0.0	0	3	0 3 0.0	0	3	0	0 3 0.0	0	3	0	0 3 0.0	0	3	0
7.0- 8.0	0 2 0.0	0	2	0 2 0.0	0	2	0	0 2 0.0	0	2	0	0 2 0.0	0	2	0
8.0- 10.0	3 23 13.0	3	23	3 23 13.0	3	23	0	3 23 13.0	3	23	0	3 23 13.0	3	23	0
10.0- 12.0	2 11 18.2	2	11	2 11 18.2	2	11	0	2 11 18.2	2	11	0	2 11 18.2	2	11	0
TOTALS:	8 75	8	75	8 75	8	75		8 75	8	75		8 75	8	75	

				SCALP EPILATION				REPRODUCTION PR08-FEM				REPRODUCTION PR08-MALE			
				CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT	
CAL/CM2	PURPURA/PETECHIAE	CASES	TOTAL	CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT	
0.0- 0.5	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
0.5- 1.0	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
1.0- 1.5	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
1.5- 2.0	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
2.0- 2.5	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
2.5- 3.0	0 0 *****	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0	0 0 *****	0	0	0
3.0- 3.5	0 2 0.0	0	2	0 2 0.0	0	2	0	0 2 0.0	0	2	0	0 2 0.0	0	2	0
3.5- 4.0	0 1 0.0	0	1	0 1 0.0	0	1	0	0 1 0.0	0	1	0	0 1 0.0	0	1	0
4.0- 4.5	0 5 0.0	0	5	0 5 0.0	0	5	0	0 5 0.0	0	5	0	0 5 0.0	0	5	0
4.5- 5.0	0 3 0.0	0	3	0 3 0.0	0	3	0	0 3 0.0	0	3	0	0 3 0.0	0	3	0
5.0- 5.5	0 16 0.0	0	16	0 16 0.0	0	16	0	0 16 0.0	0	16	0	0 16 0.0	0	16	0
5.5- 6.0	0 9 0.0	0	9	0 9 0.0	0	9	0	0 9 0.0	0	9	0	0 9 0.0	0	9	0
6.0- 7.0	1 3 33.3	1	3	1 3 33.3	1	3	0	1 3 33.3	1	3	0	1 3 33.3	1	3	0
7.0- 8.0	0 2 0.0	0	2	0 2 0.0	0	2	0	0 2 0.0	0	2	0	0 2 0.0	0	2	0
8.0- 10.0	2 23 8.7	2	23	2 23 8.7	2	23	0	2 23 8.7	2	23	0	2 23 8.7	2	23	0
10.0- 12.0	0 11 0.0	0	11	0 11 0.0	0	11	0	0 11 0.0	0	11	0	0 11 0.0	0	11	0
TOTALS:	3 75	3	75	3 75	3	75		3 75	3	75		3 75	3	75	

MAR 27, 1984

SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED		SVR BURNS		SVR MECH		LOW RADIATION		TOTAL CASES: 5	
VOMITING 1 TO 5 DAYS		VOMITING AFTER 5 DAYS		DIARRHEA-1 TO 7 DAYS		DIARRHEA AFTER 7 DAYS			
CAL/CM2	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT
0.0- 0.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
0.5- 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
1.0- 1.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
1.5- 2.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
2.0- 2.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
2.5- 3.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
3.0- 3.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
3.5- 4.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
4.0- 4.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
4.5- 5.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
5.0- 5.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
5.5- 6.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
6.0- 7.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
7.0- 8.0	1 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
8.0- 10.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
10.0- 12.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
TOTALS:	1 5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0

PURPURA/PETECHIAE		SCALP EPILATION		REPRODUCTIVE PROB-FEM		REPRODUCTIVE PROB-MALE	
CAL/CM2	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT	CASES TOTAL PERCENT
0.0- 0.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0
0.5- 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
1.0- 1.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0
1.5- 2.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
2.0- 2.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0
2.5- 3.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
3.0- 3.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0
3.5- 4.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
4.0- 4.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0
4.5- 5.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
5.0- 5.5	0 0	0 0	0 0	0 0	0 0	0 0	0 0
5.5- 6.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
6.0- 7.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
7.0- 8.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
8.0- 10.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
10.0- 12.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
TOTALS:	0 0	0 0	0 0	0 0	0 0	0 0	0 0

MAR 27, 1964

SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED
NO BURNS NO NECH

ALL RADIATION

TOTAL CASES: 384

CAL/CM2	VOMITING FIRST DAY CASES TOTAL PERCENT	VOMITING 1 TO 5 DAYS CASES TOTAL PERCENT	VOMITING AFTER 5 DAYS CASES TOTAL PERCENT	DIARRHEA-1 TO 7 DAYS CASES TOTAL PERCENT	DIARRHEA AFTER 7 DAYS CASES TOTAL PERCENT
0.0- 0.5	0 11 0.0	0 11 0.0	0 11 0.0	2 11 18.2	1 11 9.1
0.5- 1.0	0 26 0.0	0 26 0.0	1 26 3.8	1 26 3.8	4 26 15.4
1.0- 1.5	0 51 0.0	0 51 0.0	0 51 0.0	5 51 9.8	8 51 15.7
1.5- 2.0	1 26 3.8	1 26 3.8	1 26 3.8	1 26 3.8	1 26 3.8
2.0- 2.5	1 39 2.6	1 39 2.6	1 39 2.6	4 39 10.3	7 39 17.9
2.5- 3.0	0 14 0.0	0 14 0.0	0 14 0.0	0 14 0.0	0 14 0.0
3.0- 3.5	0 8 0.0	0 8 0.0	0 8 0.0	2 8 2.5	1 8 12.5
3.5- 4.0	0 21 0.0	0 21 0.0	0 21 0.0	2 21 9.5	3 21 14.3
4.0- 4.5	0 9 0.0	0 9 0.0	0 9 0.0	2 10 20.0	2 10 20.0
4.5- 5.0	0 7 0.0	0 7 0.0	0 7 0.0	1 8 12.5	1 8 12.5
5.0- 5.5	0 7 0.0	0 7 0.0	0 7 0.0	0 7 0.0	0 7 0.0
5.5- 6.0	0 7 0.0	0 7 0.0	0 7 0.0	0 7 0.0	0 7 0.0
6.0- 7.0	0 8 0.0	0 8 0.0	0 8 0.0	0 8 0.0	0 8 0.0
7.0- 8.0	0 20 0.0	0 20 0.0	0 20 0.0	0 20 0.0	0 20 0.0
8.0- 10.0	1 33 3.0	1 33 3.0	0 33 0.0	2 33 6.1	4 33 12.1
10.0- 12.0	2 31 6.5	2 31 6.5	0 31 0.0	2 33 6.1	4 33 12.1
12.0- 14.0	2 19 22.2	2 19 22.2	0 19 0.0	0 19 0.0	1 19 11.1
14.0- 16.0	0 14 0.0	0 14 0.0	1 14 7.1	1 15 6.7	3 15 20.0
16.0- 18.0	1 10 10.0	1 10 10.0	0 10 0.0	1 10 10.0	3 10 30.0
18.0- 20.0	1 11 0.1	1 11 0.1	1 11 9.1	0 11 0.0	2 11 27.3
20.0- 25.0	1 4 25.0	1 4 25.0	0 4 0.0	1 4 25.0	1 4 25.0
25.0- 30.0	0 7 0.0	0 7 0.0	0 7 0.0	2 7 28.5	2 7 28.6
30.0- 40.0	2 5 40.0	2 5 40.0	0 5 0.0	0 5 0.0	1 5 20.0
40.0- 50.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
50.0- 60.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
60.0- 80.0	1 1 100.0	1 1 100.0	0 1 0.0	0 1 0.0	0 1 0.0
80.0-100.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
TOTALS:	13 379	16 379	7 379	29 384	59 384

CAL/CM2	PURPURA/PECTE:IE	SCALP EPILATION	REPRODUCTIVE PRCB-FEM	REPRODUCTIVE PRCB-MALE
0.0- 0.5	0 11 0.0	0 11 0.0	0 11 0.0	0 11 0.0
0.5- 1.0	3 25 11.0	0 26 0.0	3 25 11.0	0 26 0.0
1.0- 1.5	0 51 0.0	0 51 0.0	4 51 0.0	0 51 0.0
1.5- 2.0	0 26 0.0	0 26 0.0	8 26 0.0	0 26 0.0
2.0- 2.5	1 39 2.6	1 39 2.6	10 39 2.6	0 39 0.0
2.5- 3.0	0 14 0.0	0 14 0.0	3 14 7.1	0 14 0.0
3.0- 3.5	0 8 0.0	0 8 0.0	2 8 25.6	0 8 0.0
3.5- 4.0	0 21 0.0	0 21 0.0	7 21 30.0	0 21 0.0
4.0- 4.5	0 10 0.0	0 10 0.0	1 10 10.0	0 10 0.0
4.5- 5.0	1 8 12.5	1 8 12.5	1 8 12.5	0 8 0.0
5.0- 5.5	1 7 10.0	1 7 10.0	3 7 42.9	0 7 0.0
5.5- 6.0	0 0 0.0	0 0 0.0	2 0 0.0	0 0 0.0
6.0- 7.0	1 8 12.5	1 8 12.5	4 8 50.0	0 8 0.0
7.0- 8.0	0 20 0.0	0 20 0.0	0 20 0.0	0 20 0.0
8.0- 10.0	2 33 6.1	2 33 6.1	2 33 6.1	0 33 0.0
10.0- 12.0	2 19 22.2	2 19 22.2	0 19 0.0	0 19 0.0
12.0- 14.0	0 14 0.0	0 14 0.0	1 14 7.1	0 14 0.0
14.0- 16.0	1 10 10.0	1 10 10.0	0 10 0.0	0 10 0.0
16.0- 18.0	1 11 0.1	1 11 0.1	1 11 9.1	0 11 0.0
18.0- 20.0	1 4 25.0	1 4 25.0	0 4 0.0	0 4 0.0
20.0- 25.0	0 7 0.0	0 7 0.0	0 7 0.0	0 7 0.0
25.0- 30.0	2 5 40.0	2 5 40.0	0 5 0.0	0 5 0.0
30.0- 40.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
40.0- 50.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
50.0- 60.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
60.0- 80.0	1 1 100.0	1 1 100.0	0 1 0.0	0 1 0.0
80.0-100.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
TOTALS:	28 334	32 394	54 130	4 146

MAR 27, 1954									
SYMPTOMS HIROSHIMA - OLDSIDE UNSHIELDED									
NO BURNS 400 FEET									
ALL RADIATION									
TOTAL CASES: 125									
DIARRHEA-1 TO 7 DAYS									
CASES TOTAL PERCENT									
DIARRHEA AFTER 7 DAYS									
CASES TOTAL PERCENT									
VOMITING 1 TO 5 DAYS									
CASES TOTAL PERCENT									
VOMITING AFTER 5 DAYS									
CASES TOTAL PERCENT									
VOMITING 1 TO 7 DAYS									
CASES TOTAL PERCENT									
SCALP EPILATION									
REPRODUCTIVE PROB-FEM									
REPRODUCTIVE PROB-MALE									
PUSS/PURPURA/PECTENIE									
CAL/CM2									
TOTALS:									

MAR 27, 1984				SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED				ALL RADIATION				TOTAL CASES: 13			
				NO BURNS SVR PECH											
CAL/CM2	VOMITING FIRST DAY		TOTAL PERCENT	VOMITING 1 TO 5 DAYS		TOTAL PERCENT	DIARRHEA-1 TO 7 DAYS	VOMITING AFTER 5 DAYS		TOTAL PERCENT	DIARRHEA-1 TO 7 DAYS	DIARRHEA AFTER 7 DAYS		TOTAL PERCENT	
	CASES	PERCENT		CASES	PERCENT			CASES	PERCENT			CASES	PERCENT		
0.5- 0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.5- 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0- 1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5- 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0- 2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.5- 3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0- 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.5- 4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.0- 4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.5- 5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0- 5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.5- 6.0	1	2	50.0	1	2	50.0	1	2	50.0	1	2	50.0	1	2	50.0
6.0- 7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.0- 8.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.0- 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0- 12.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.0- 14.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.0- 16.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.0- 18.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.0- 20.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.0- 25.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.0- 30.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30.0- 40.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40.0- 50.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50.0- 60.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60.0- 80.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80.0-100.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS:	1	13		2	13		3	13		3	13	2	13		13

CAL/CM2	PURPURA/PECTHIE		TOTAL PERCENT	SCALP EPILATION		TOTAL PERCENT	REPRODUCTIVE PROB-FEM		TOTAL PERCENT	REPRODUCTIVE PROB-MALE		TOTAL PERCENT	
	CASES	PERCENT		CASES	PERCENT		CASES	PERCENT		CASES	PERCENT		
0.5- 0.5	0	0	0	0	0	0	0	0	0	0	0	0	0
0.5- 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0- 1.5	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5- 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0- 2.5	0	0	0	0	0	0	0	0	0	0	0	0	0
2.5- 3.0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0- 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0
3.5- 4.0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.0- 4.5	0	0	0	0	0	0	0	0	0	0	0	0	0
4.5- 5.0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0- 5.5	0	0	0	0	0	0	0	0	0	0	0	0	0
5.5- 6.0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.0- 7.0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.0- 8.0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.0- 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0- 12.0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.0- 14.0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.0- 16.0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.0- 18.0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.0- 20.0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.0- 25.0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.0- 30.0	0	0	0	0	0	0	0	0	0	0	0	0	0
30.0- 40.0	0	0	0	0	0	0	0	0	0	0	0	0	0
40.0- 50.0	0	0	0	0	0	0	0	0	0	0	0	0	0
50.0- 60.0	0	0	0	0	0	0	0	0	0	0	0	0	0
60.0- 80.0	0	0	0	0	0	0	0	0	0	0	0	0	0
80.0-100.0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS:	0	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL CASES: 1295

SYMPYCHS WIRSHIMA - OUTSIDE CUSHIELDED
HGD BUANS NO PESH

4:2 27, 1984

ALL RACIATION

TOTAL CASES: 1295

CAL/CH2	VOMITING FIRST DAY			VOMITING 1 TO 5 DAYS			VOMITING AFTER 5 DAYS			DIARRHEA-1 TO 7 DAYS			DIARRHEA AFTER 7 DAYS		
	CASES	TOTAL	PERCENT	CASES	TOTAL	PERCENT	CASES	TOTAL	PERCENT	CASES	TOTAL	PERCENT	CASES	TOTAL	PERCENT
G-C- 0-5	0	0	C.O	0	0	C.O	0	0	C.O	0	0	C.O	1	1	C.O
G-S- 1-5	0	0	****	0	0	****	0	0	****	0	0	****	0	0	****
G-S- 1-5	1	10	10.0	1	10	10.0	0	10	C.O	0	10	C.O	2	10	20.0
G-S- 1-5	0	15	0.0	1	15	6.7	0	15	C.O	2	15	13.3	4	15	26.7
G-C- 2-5	1	13	5.6	1	12	5.6	0	12	C.O	3	12	16.7	2	13	11.1
G-S- 3-5	0	7	C.O	0	7	0.0	0	7	C.O	0	7	C.O	0	7	C.O
G-S- 3-5	0	10	C.O	1	10	10.0	1	10	10.0	1	10	10.0	1	10	10.0
G-S- 4-5	0	23	C.O	0	23	C.O	0	23	C.O	4	23	17.4	5	23	21.7
G-C- 4-5	2	30	6.7	0	30	C.O	0	30	C.O	5	33	15.2	1	32	3.0
G-S- 4-5	0	16	0.0	1	16	6.3	0	16	C.O	5	16	31.3	2	16	12.5
G-S- 5-5	0	45	0.0	1	45	2.2	0	45	C.O	4	45	8.9	4	45	8.9
G-S- 6-5	2	41	4.9	3	41	7.3	1	41	2.4	6	43	14.0	4	43	9.3
G-C- 7-5	1	28	3.6	1	28	3.6	1	28	3.6	2	28	7.1	6	23	26.1
G-S- 8-5	3	99	3.0	5	99	5.1	2	99	2.0	5	100	5.0	17	100	17.0
G-C- 10-5	10	256	3.9	11	255	4.3	11	256	4.3	13	262	5.0	42	262	16.0
G-C- 12-5	38	328	11.6	50	328	15.2	25	323	7.6	32	339	9.4	71	339	20.9
G-C- 14-5	15	101	14.9	15	101	14.9	5	101	5.0	5	115	4.3	25	115	21.6
G-C- 16-5	7	74	9.5	7	74	9.5	3	74	4.1	3	76	3.9	14	76	18.4
G-C- 18-5	22	43	45.9	22	43	45.2	1	48	2.1	5	50	10.0	13	50	26.0
G-C- 20-5	8	46	17.4	8	46	17.4	4	48	8.7	2	50	4.0	16	50	32.0
G-C- 25-5	31	49	44.9	35	69	50.7	4	69	5.8	12	67	17.9	15	67	22.4
G-C- 30-5	12	45	26.7	13	45	28.9	3	45	6.7	5	44	11.4	12	44	27.3
G-C- 40-5	1	11	9.1	1	11	9.1	0	11	C.O	1	12	8.3	1	12	8.3
G-C- 50-5	1	3	33.3	2	3	66.7	0	3	C.O	0	3	C.O	1	3	33.3
G-C- 60-5	1	1	100.0	1	1	100.0	0	1	C.O	0	1	C.O	0	1	100.0
G-C- 70-5	0	0	****	0	0	****	0	0	****	0	0	****	0	0	****
G-C- 100-5	0	0	****	0	0	****	0	0	****	0	0	****	0	0	****
80-C-100.0	181	1325	13.6	181	1325	13.6	62	1325	4.7	11	1370	0.8	260	1370	19.0

CAL/CM2		PURPURA/PSETECHIAS		SCALP EPILATION		REPRODUCTIVE		PRICE-FEM		REPRODUCTIVE		PROB-MALE	
C-5	C-5	1	0	0	1	C-5	0	C	0.0000	0	1	C-5	0.0000
C-5	C-5	0	0	0	0	0.0000	0	C	0.0000	0	0	0.0000	0.0000
1.0	1.5	10	0	0	10	0.0	0	1	0.0	0	0	0.0	0.0
1.5	2.0	15	0	0	15	0.0	1	8	12.5	0	0	0.0	0.0
2.0	2.5	18	0	0	18	0.0	4	9	46.4	0	9	0.0	0.0
2.5	3.0	17	0	0	7	0.0	1	4	25.0	0	3	0.0	0.0
3.0	3.5	10	0	0	10	0.0	3	3	45.0	0	5	0.0	0.0
3.5	4.0	23	0	0	23	0.0	4	10	75.0	1	13	7.7	0.0
4.0	4.5	33	0	8	33	24.2	5	9	55.6	0	21	0.0	0.0
4.5	5.0	15	0	1	16	6.3	2	9	25.0	0	5	0.0	0.0
5.0	5.5	45	0	1	45	2.2	5	21	23.8	1	24	4.2	0.0
5.5	6.0	43	0	7	42	16.7	5	13	38.5	1	23	4.3	0.0
6.0	7.0	43	0	3	27	11.1	7	16	37.5	0	12	0.0	0.0
7.0	8.0	103	1	20	103	12.4	7	17	43.8	0	39	0.0	0.0
8.0	10.0	265	0	47	262	17.9	24	57	42.1	4	79	5.1	0.0
10.0	12.0	311	0	90	341	26.4	25	73	34.2	2	25	8.0	0.0
12.0	14.0	311	0	44	115	37.9	7	17	41.2	0	23	12.5	0.0
14.0	16.0	77	0	26	77	33.8	7	12	58.3	1	8	0.0	0.0
16.0	18.0	50	0	29	49	59.2	7	13	53.8	0	3	0.0	0.0
18.0	20.0	49	0	29	50	58.0	2	9	22.2	2	13	15.4	0.0
20.0	22.0	67	0	56	69	81.2	7	30	22.3	0	7	0.0	0.0
22.0	24.0	45	0	31	45	67.4	5	12	41.7	0	20	0.0	0.0
24.0	26.0	11	0	8	10	80.0	0	2	0.0	0	5	0.0	0.0
26.0	28.0	3	0	2	3	66.7	0	1	0.0	0	1	0.0	0.0
28.0	30.0	3	0	1	1	100.0	1	1	100.0	0	0	0.0	0.0
30.0	32.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
32.0	34.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
34.0	36.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
36.0	38.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
38.0	40.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
40.0	42.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
42.0	44.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
44.0	46.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
46.0	48.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
48.0	50.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
50.0	52.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
52.0	54.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
54.0	56.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
56.0	58.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
58.0	60.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
60.0	62.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
62.0	64.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
64.0	66.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
66.0	68.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
68.0	70.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
70.0	72.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
72.0	74.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
74.0	76.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
76.0	78.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
78.0	80.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
80.0	82.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
82.0	84.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
84.0	86.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
86.0	88.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
88.0	90.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
90.0	92.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
92.0	94.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
94.0	96.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
96.0	98.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
98.0	100.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
100.0	102.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
102.0	104.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
104.0	106.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
106.0	108.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
108.0	110.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
110.0	112.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
112.0	114.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
114.0	116.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
116.0	118.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
118.0	120.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
120.0	122.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
122.0	124.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
124.0	126.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
126.0	128.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
128.0	130.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
130.0	132.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
132.0	134.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
134.0	136.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
136.0	138.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
138.0	140.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
140.0	142.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
142.0	144.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
144.0	146.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
146.0	148.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
148.0	150.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
150.0	152.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
152.0	154.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
154.0	156.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
156.0	158.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
158.0	160.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
160.0	162.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
162.0	164.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
164.0	166.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
166.0	168.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
168.0	170.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
170.0	172.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
172.0	174.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
174.0	176.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
176.0	178.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
178.0	180.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
180.0	182.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
182.0	184.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
184.0	186.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
186.0	188.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
188.0	190.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
190.0	192.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
192.0	194.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
194.0	196.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
196.0	198.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
198.0	200.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
200.0	202.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
202.0	204.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
204.0	206.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
206.0	208.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
208.0	210.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
210.0	212.0	1	0	1	1	100.0	0	0	0.0	0	0	0.0	0.0
212.0	214.0	1	0	1	1	100.0	0</						

MAR 27, 1984				SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED				ALL RADIATION				TOTAL CASES: 283			
				MOD BURNS MCD MECH											

MAR 27, 1984				SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED MOG BURNS SVR PECH				ALL RADIATION				TOTAL CASES: 13			
VOMITING FIRST DAY				VOMITING AFTER 5 DAYS				DIARRHEA-1 TO 7 DAYS				DIARRHEA AFTER 7 DAYS			
CAL/CH2	CASES	TOTAL	PERCENT	CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT	
0.0- 0.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
0.5- 1.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
1.0- 1.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
1.5- 2.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
2.0- 2.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
2.5- 3.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
3.0- 3.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
3.5- 4.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
4.0- 4.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
4.5- 5.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
5.0- 5.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
5.5- 6.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
6.0- 7.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
7.0- 8.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
8.0- 10.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
10.0- 12.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
12.0- 14.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
14.0- 16.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
16.0- 18.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
18.0- 20.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
20.0- 25.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
25.0- 30.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
30.0- 40.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
40.0- 50.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
50.0- 60.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
60.0- 80.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
80.0-100.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
TOTALS:	3	13		0	13			1	13			2	13		

PURPURA/PEITCHIAE				SCALP EPILATION				REPRODUCTIVE PROB-FEM				REPRODUCTIVE PROB-MALE			
CAL/CH2	CASES	TOTAL	PERCENT	CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT	
0.0- 0.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
0.5- 1.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
1.0- 1.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
1.5- 2.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
2.0- 2.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
2.5- 3.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
3.0- 3.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
3.5- 4.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
4.0- 4.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
4.5- 5.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
5.0- 5.5	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
5.5- 6.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
6.0- 7.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
7.0- 8.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
8.0- 10.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
10.0- 12.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
12.0- 14.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
14.0- 16.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
16.0- 18.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
18.0- 20.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
20.0- 25.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
25.0- 30.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
30.0- 40.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
40.0- 50.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
50.0- 60.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
60.0- 80.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
80.0-100.0	0	0	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
TOTALS:	2	13		5	13			0	13			0	13		

MAR 27, 1994				SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED				ALL RADIATION				TOTAL CASES: IC11			
				SVR BURNS				NO PSCH							
				VOMITING 1 TO 5 DAYS				VOMITING AFTER 5 DAYS				DIARRHEA-1 TO 7 DAYS			
				CASES TOTAL PERCENT				CASES TOTAL PERCENT				CASES TOTAL PERCENT			
CAL/CM2	0.5	1.0	1.5	0	0	0	0	0	0	0	0	0	0	0	0
0.5- 0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.5- 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0- 1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5- 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0- 2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.5- 3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0- 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.5- 4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.0- 4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.5- 5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0- 5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.5- 6.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.0- 7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.0- 8.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.0- 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0- 12.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.0- 14.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.0- 16.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.0- 18.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.0- 20.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.0- 25.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.0- 30.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30.0- 40.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40.0- 50.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50.0- 60.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60.0- 80.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80.0-100.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS:	121	935		134	986			45	906			107	996	197	596

				SCALP EPILATION				REPRODUCTIVE PROO-FEM				REPRODUCTIVE PROB-MALE			
				CASES TOTAL PERCENT				CASES TOTAL PERCENT				CASES TOTAL PERCENT			
CAL/CM2	0.5	1.0	1.5	0	0	0	0	0	0	0	0	0	0	0	0
0.5- 0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.5- 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0- 1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5- 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0- 2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.5- 3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0- 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.5- 4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.0- 4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.5- 5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0- 5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.5- 6.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.0- 7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.0- 8.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.0- 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0- 12.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.0- 14.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.0- 16.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.0- 18.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.0- 20.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.0- 25.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.0- 30.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30.0- 40.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40.0- 50.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50.0- 60.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60.0- 80.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80.0-100.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS:	43	1001		239	1000			183	377			50	386		

[illegible]

CAL/CH2	PURPURA/PSTECHEIE	SCALP EPILATION	REPRODUCTIVE	PROB-FEM	REPRODUCTIVE	PROB-MALE
0.0- 0.5	0	0	0	0	0	0
0.5- 1.0	0	0	0	0	0	0
1.0- 1.5	0	0	0	0	0	0
1.5- 2.0	0	0	0	0	0	0
2.0- 2.5	0	0	0	0	0	0
2.5- 3.0	0	0	0	0	0	0
3.0- 3.5	0	1	0	0	0	0
3.5- 4.0	0	2	0	0	0	0
4.0- 4.5	0	5	1	0	0	0
4.5- 5.0	0	0	2	0	0	0
5.0- 5.5	0	0	1	0	0	0
5.5- 6.0	0	1	1	0	0	0
6.0- 7.0	1	3	1	0	0	0
7.0- 8.0	2	5	4	0	0	0
8.0- 10.0	2	23	15	0	10	0
10.0- 12.0	0	11	2	0	1	0
12.0- 14.0	0	10	2	0	1	0
14.0- 16.0	1	4	1	0	2	0
16.0- 18.0	1	5	0	0	1	0
18.0- 20.0	3	3	0	0	0	0
20.0- 25.0	4	9	2	0	0	0
25.0- 30.0	0	4	1	0	0	0
30.0- 40.0	0	3	1	0	0	0
40.0- 50.0	0	0	2	0	0	0
50.0- 60.0	0	0	0	0	0	0
60.0- 80.0	0	0	0	0	0	0
80.0-100.0	1	0	1	0	0	0
TOTALS:	12	50	19	47	9	47

MAR 27, 1994				SYMPTOMS HIROSHIMA - OUTSIDE UNSHIELDED				ALL RADIATION				TOTAL CASES: 9				
				SVR BURNS				SVR MECH								
CAL/CM2	VOMITING FIRST DAY				VOMITING AFTER 5 DAYS				DIARRHEA-1 TO 7 DAYS				DIARRHEA AFTER 7 DAYS			
	CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT	
0.0- 0.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
0.5- 1.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
1.0- 1.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
1.5- 2.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
2.0- 2.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
2.5- 3.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
3.0- 3.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
3.5- 4.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
4.0- 4.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
4.5- 5.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
5.0- 5.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
5.5- 6.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
6.0- 7.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
7.0- 8.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
8.0- 10.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
10.0- 12.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
12.0- 14.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
14.0- 16.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
16.0- 18.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
18.0- 20.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
20.0- 25.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
25.0- 30.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
30.0- 40.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
40.0- 50.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
50.0- 60.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
60.0- 80.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
80.0-100.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
TOTALS:	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
CAL/CM2	PURPURA/PECTECIE				SCALP EPILATION				REPRODUCTIVE PROB-FEM				REPRODUCTIVE PROB-MALE			
	CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT		CASES	TOTAL	PERCENT	
0.0- 0.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
0.5- 1.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
1.0- 1.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
1.5- 2.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
2.0- 2.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
2.5- 3.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
3.0- 3.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
3.5- 4.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
4.0- 4.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
4.5- 5.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
5.0- 5.5	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
5.5- 6.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
6.0- 7.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
7.0- 8.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
8.0- 10.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
10.0- 12.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
12.0- 14.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
14.0- 16.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
16.0- 18.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
18.0- 20.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
20.0- 25.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
25.0- 30.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
30.0- 40.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
40.0- 50.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
50.0- 60.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
60.0- 80.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
80.0-100.0	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	
TOTALS:	0	0	0.0000		0	0	0.0000		0	0	0.0000		0	0	0.0000	

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