

Comments by T. N. White on:

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CL8
to OVO

404399

Report by the Commander, JTF-3 on Completion of Operation Greenhouse

Conclusions: BEST COPY AVAILABLE

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R

Paragraph 9. I suggest the following changes:

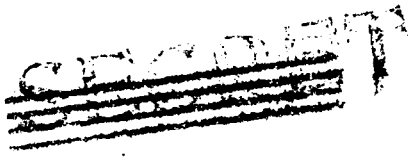
Full scale operations are excellent training exercises for the armed forces in dealing with radioactivity. However, the exposure limit of 0.7r per week, although more liberal than the AEC standard limit of 0.3 r per week for steady exposure, does not represent a realistic limit to apply in a military or civilian emergency. Likewise, the general use of highly sensitive survey meters is unrealistic in that adverse psychological reactions result when these sensitive instruments go off scale. Although military and civil defense operations are perhaps unlikely to encounter such high intensities as those found in some cases at Greenhouse, the implication of the operational standard is that an excess over 0.7r in one week is harmful. The services should re-examine their educational programs and training and operating directives with a view towards stressing practical realities of emergency operations in the presence of radiation. Further, the services should reconsider the types of instruments now available to troops for training and for field usage. It is concluded that a total operational exposure limit might be preferable to a weekly exposure limit. Any total radiation limit placed for a whole operation would be closer to the amount of radiation which would be permitted under emergency conditions. It is believed that the maximum exposure should be decided in advance according to the expected duration of the operation and with reasonable allowance for unforeseeable contingencies, and that once this limit has been decided upon it should be accepted as authoritative.

4/13/74
 by authority of the U. S. Atomic Energy Commission
 ONLY
 12-1-58
 R. Krohn
 Bertie Grant
 (Signature of person making the change, and date)
 Person authorizing change in classification (date)
 12-2-58

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Discussion:

Section 22. Radiological Safety

I suggest that the statement "This tolerance is based on a continuous lifetime exposure for radiation laboratory personnel" be changed to read:

This tolerance, slightly more liberal than the current 0.3 roentgen per week limit used for continuously exposed radiation laboratory personnel, was adopted with the expectation that the average exposure throughout the operation would not exceed 0.3 roentgen per week.

The following change is suggested on page 21:

"The prompt fall-out which occurred after "DOG" shot was unexpected, since observed at Operation SANDSTONE."

APPENDIX "P"

RADIOLOGICAL SAFETY

1. General

c. 0.1 r/day is not the present permissible. See comment on Section 22 of "Discussion".

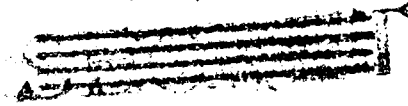
The implication that "personnel who are only occasionally exposed to radiation" should be permitted at least 7 r per week during an operation lasting 8 weeks seems highly questionable.

4. "EASY" Shot

b. Leave out "hitherto undiscovered". The phenomenon was predicted for Trinity and the predictions were verified by observations. A combination of circumstances made us neglect the lesson learned there.

c. I know of no evidence that the debris was particularly concentrated at the 30,000 - 45,000 foot levels. Those levels were ones from which debris

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was more likely to land on us in some cases.

d. (2) "4 to 5 miles to the southwest." Should read southeast?

General Comment on Rad-Safe Aspects of the Whole Report:

One gets the feeling that the report favors liberally dosing the military personnel with radiation at future operations, for the purpose of eliminating undue timidity, particularly in the military rad-safe personnel. This reader is fully in sympathy with efforts to educate those monitors who become unduly excited about a moderate fall-out on ships and inhabited islands. However, the general attitude of the report is not particularly applicable to the individuals who accept the highest risk of over-exposure in really hot recovery operations. It is generally regarded as good policy to hold exposure to a minimum. How far it is advisable to go in the opposite direction for educational purposes is debatable.

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		1630- 1640	I+1 0900- 1030	I+2 0845- 0945
<u>0617</u>	I (25 May)			
Bogor	420 (1033)	3	55	25
Teluk	550 (1036)	16	60	33
Eluglat	4400 (1040)	24	480	340
ruhi & Ruhi	16,000 (1043)	180		1000
Ruhi	13,000 (1045)	100		900
Bogor bogor	10,000 (1048)	190	850	700
Bogor bogor	9,000 (1050)	2900	900	800
Imi swg "	5,500 (1054)			
Rigili	7000 (111)		650	450
Girini	2800 (1121)		410	250
Pokon	1600 (1124)		365	
Mui	1300 (1128)		270	160
Igurin	1400 (1133)		400	125
Wetok	45 (1152)	60 (1100)	155	90
Pamy	6 (1150)	44 "	40	28
Anigamit	0.5 (1005)	3.2 (1600)	30	18
Runit	1.2 (1010)	1.2 (1612)	15 (0830)	
Pilicai	0.0 (1010)		5 (")	
Silini	0.7 (1020)	0.8 (1622)	2.2 "	
Bekon	0.0 (1020)		0	
Kirinian			0	
Muzin			1.5	

at 500 ft

Ribain

	I+3 0812-1225	I+4 0815-0935
Bogon	14	
Teit	18	
Elu	180	120
N	600	430
Ruchi	480	
Bogom	400	
Bogolua	300	270
Rigili	280	170
Girin	140	110
Pokon	60	
Mui	80	
Iq	50	29
A (wetoki)	25-35	
B (Perry)	10	9 (1130)
Ani	5.5	3.2
Runit	1.6	1.5
Pirali	1.2	
Bujiri	1.2	0.9
Muzin	1.0	1.1