

Experiment AF SWP
TQ 7.6

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GTG-7.1 Memorandum No. ____.

Subject: Radiological Safety Plan.

Reference: (a) Appendix J to Field Order No. 1.

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JA Brown FSS-16 3/4/98

1. General

- (a) Radiological Safety of all military and civilian personnel assigned to JTF-7 is a command responsibility of GJTF-7.
- (b) The Radiological Safety Officer, JTF-7 (Col. J.P. Cooney, MC., USA) is responsible to the Task Force Commander. He also acts as advisor on Gamma Ray exposure to the Scientific Director. The Radiological Safety Officer has staff responsibility for radiological safety of all personnel. In the accomplishment of his mission, he:
 - (1) Informs Task Force Commanders regarding radiological hazards which may cause injury or sickness to personnel.
 - (2) Prepares instructions explaining the precautions necessary for protection of personnel against such hazards.
 - (3) Re-evaluates the hazards of radio-active areas as radiological survey progresses.
 - (4) Advises Task Force Surgeon as to diagnosis and treatment of illness or injury resulting from or associated with exposure to radioactivity.
- (c) Commander Task Group 7.6 (Joint Radiological Safety Group (Gr. F.I. Vincent, USN)) is charged with effecting radiological safety of all personnel. GTG-7.6 is charged with the:
 - (1) Organization and command of a Joint Radiological Safety Group and supporting personnel quartered on the USS ~~REDACTED~~ (SS-115).

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- (2) Support of all operations in radioactive areas by supplying radiological monitors and equipment.
 - (3) Responsibility of effecting radiological safety regulations and reporting infractions.
 - (4) Detection and determination of intensity and types of radioactivity encountered in all radiological areas.
 - (5) Organization and supervision of decontamination of personnel as necessary.
2. Regulations: The following regulations will govern for the safety of all personnel of TG-7.1 entering areas containing radioactivity or working with radioactive materials.
- (a) The permissible radiological exposure is established at 0.1 roentgens per twenty-four hours. Under unusual circumstances the Scientific Director, with the concurrence of the Radiological Safety Officer, may authorize a person to take an exposure in excess of the daily permissible dose. The accumulated excess shall under no circumstances exceed three (3) roentgens. For example, any individual who has not exceeded his exposure limit prior to this operation may receive exposures as follows in order to enter a contaminated area:

Exz	Exposure - R/24 hours	Excess in R/24	Notes
1	0	0	
2	0.1	0	
3	1.0	0.9	
4	0.1	0.9	

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<u>Day</u>	<u>Exposure - R/24 hours</u>	<u>Excess in R.</u>	<u>Notes</u>
5	2.0	2.8	With this excess, entry would be permitted the next day only under very unusual circumstances.
6	0.1	2.8	
7	0.3	3.0	No further excess in radiation permitted.
8	0.1	3.0	No further excess in radiation permitted.
9	0	2.9	
10	0	2.8	
11	0.4	3.1	This overexposure obtained by accident. Entry to area prohibited next day.
12	0	3.0	

(b) Work in contaminated area is divided into two general classifications, namely, urgent work and routine work. Urgent work will be authorized by the Scientific Director. This may be conducted during a period immediately following each shot. Upon accomplishment of the special missions required by this urgent work, or as provided in the Scientific Operation Plan, further entry into contaminated areas will be discontinued until a comprehensive radiological survey has been accomplished. This will consist of a survey of both land and air. No routine work will be commenced until this survey indicates acceptable working conditions.

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- (c) Section leaders should consult the radiological situation chart before making a specific and detailed plan for entry into a prescribed contaminated area. This chart will indicate the daily radiological situation at each site following the detonation and will be maintained current.
- (d) Section leaders will submit to the Scientific Director for consideration the names of all individuals in his group who expect to enter radioactive areas. This list should be prepared at least two weeks prior to the test. Thereafter, the section leaders will submit to the Scientific Director, a Central List containing the names of all persons in his section who expect to enter a contaminated area on a specific day. This list shall be submitted on the day preceding the day planned for entry. This system will permit the radiological group to assign monitors, determine instruments and equipment needed, prepare personnel (exposure) badges and in general, facilitate the entry and movement of a party into a contaminated area.
- (e) The Scientific Director shall advise section leaders, when indicated, the names of any person who is disqualified for entry by reason of radiological exposure.
- (f) All individuals or parties entering contaminated areas shall be accompanied by monitors supplied by the Radiological Safety Group. The Monitor will inform the person in charge of each party about the radiological hazard involved and indicate when the radiation tolerance has been reached.
- (g) Prior to embarkation on a contaminated island, all personnel going ashore will be issued appropriate equipment including radiation badges, monitor and such protective clothing as may be required. Urgent work parties

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may be required to wear gas masks, if necessary. Upon completion of work in an area, radiological equipment - including exposure badge - will be returned to the monitor prior to re-embarkation. The monitor will survey clothing of all personnel and may require contaminated personnel to disembark at the CVE-115 when warranted by the conditions.

- (h) Section leaders shall exercise extreme care to prevent any contaminated material getting within the ship, shops or living spaces. Special care shall be taken by all persons in handling contaminated gear, equipment and samples. Additional instructions will be issued, as indicated, to minimize the hazard.
- (i) No eating, drinking, or smoking is permitted in any radioactive area until such area has been formally cleared. Furthermore, no eating, drinking, or smoking by any person, who has been in a radioactive area will be permitted until the radiological safety monitor has found that person to be uncontaminated.
- (j) The Scientific Director will have a list of all persons who have received radiation in excess of 0.1 roentgens on any day of operations. This list will give also the total accumulated radiation received by such person to date.
- (k) All islands in the Atoll, following each detonation, will be considered contaminated until reported clear.

3. Disaster Party

- (a) A disaster party will be formed from certain personnel of the Joint Radiological Safety Group. During specified periods, this party will be assembled near the core site with the objective of assisting injured personnel in the event of disaster.

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4. Radioactive Material

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- (a) Transportation of radioactive material from the forward area must be in accordance with Atomic Energy Commission Regulations for transportation of radioactive materials (AEC Regulations - Safety No. 3, Part 14). Prior to transportation all radioactive material will be monitored. Authority to remove samples of radioactive material out of the forward area which are derived or resulted from the detonation, shall be obtained from the Scientific Director and shall comply with security regulations.

JAMES S. RUSSELL
Captain, USN
Commander, Task Group 7.1

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