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CINNO 0413

785

[REDACTED]

AIR MINISTRY
1-6 TAVISTOCK SQUARE,
LONDON, W.C.1.

0194 XXIX ①
EVT 5

G.10/D. of H. & R.

24 July, 1958

Sir,

Radiological Safety Precautions at Christmas Island

I am directed to refer to the Commander Task Force Grapple's letter GRA/10A/6/ORG dated 17th July, 1958 addressed to D.G.M.S., Air Ministry with copies to you. The letter records the conclusions reached by the medical representatives of the services with [REDACTED] and Task Force Grapple staff on the desirability of carrying out preliminary blood examinations on members of the services taking part in weapon trials at Christmas Island.

2. Action is being taken by this Directorate to arrange for the blood examination of the R.A.F. Balloon Unit and Royal Engineer Unit referred to in paragraph 4. It is expected that this will be carried out at Christmas Island by technicians sent there, as a temporary measure, under arrangements made by [REDACTED] and will be completed by August 22nd, 1958.

3. The question remains however as to whether replacement personnel of the services should in future have blood examinations made before leaving the United Kingdom for Christmas Island.

4. In the Air Ministry view, such examinations are not justified on purely medical grounds for all replacements because -

- (a) they will not protect the Department concerned against claims for damages
- (b) periodic fluctuations in white cell counts make the interpretation of a single count in most cases of little value.

5. The occupants of the controlled area on the other hand may, it is stated, be subjected to fall out, and the question arises as to whether it might not be advisable therefore, to adopt a preliminary examination for this group as is intended in the United Kingdom for persons exposed to ionising radiations in their occupation. If the Special (Ionising Radiation) Regulations (Factories Act) now in draft form are to be accepted as a guide it would presumably also be necessary to carry out a chest x-ray examination of each individual.

6. It will be necessary for the Services to agree a common policy and I am, therefore, to ask that the views of your department be communicated as early as possible to this directorate. The matter is now urgent as weapons trials will continue during the autumn but the technicians carrying out blood examinations for [REDACTED] will leave Christmas Island towards the end of August to return to this country.

I am, Sir,
Your obedient Servant

[REDACTED]

Director of Hygiene & Research.

The Medical Director General of the Navy,
Medical Department of the Navy, (Admiralty),
Queen Anne's Mansions,
St. James Park, S.W.1.

[REDACTED]

The Director General of Army Medical Services,
The War Office,
London, S.W.1.

Copies to: [REDACTED] Undersecretary, Ministry of Supply, S.W.1.
and Commander, Task Force Grapple.

[REDACTED]

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Headquarters Task Force Grapple,
Air Ministry,
Whitehall Cms.,
London S.W. 1

17th July, 1958

Radiological Safety Precautions at Christmas Island

1. The question of instituting blood counts for Service personnel posted to Christmas Island has recently been under consideration by the Task Force and Atomic Weapons Research Establishment. Under present arrangements certain locations at the Base where contamination is a possibility have entry and exit thereto rigidly controlled and those who work in these areas have blood examinations. For the series of tests planned to start next August balloon supported firings will be conducted for the first time at Christmas Island. This introduces a new factor in that rehabilitation of the area contaminated after a balloon firing will be necessary and this work will be done by some 250 R.C. and R.A.F. personnel.

2. In order to determine the correct policy regarding blood counts a meeting was held at A.W.R.E. on 15th July, 1958 with representation as follows:-

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

3. The conclusions reached at this meeting were as follows:-

(a) All medical opinion present agreed single blood counts to be of negligible scientific value.

(b) [REDACTED] partly anticipating new statutory regulations under the Factories Act (not yet approved) believe that blood counts should be given to all at Christmas Island as a medico-legal safeguard, both to satisfy public opinion and as a "moral" obligation. [REDACTED] representation at the meeting did not believe blood counts to be a medico-legal safeguard and, as they are scientifically worthless done under Service conditions, considered it "immoral" to do this.

/(c).....

Under Secretary of State,

[REDACTED]

Aldermaston
Secretary of the Admiralty,
Admiralty, (M.D.G.)
London S.W. 1

[REDACTED]

St Giles Ct., S.W. 2
Secretary of State,
War Office, (M.D.)
Whitehall S.W. 1

[REDACTED]

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(c) After some discussion the meeting concluded that we should institute one blood examination for each of those required to work in the new controlled area.

(d) The meeting agreed that it would be impracticable and valueless to institute blood counts for the remaining personnel at Christmas Island (some 4,500) but that the Services should be invited to determine whether future replacements in all three Services should be subjected to blood examinations prior to posting to Christmas Island.

4. R.A.F. Balloon Unit and Royal Engineer personnel requiring blood counts (para 3 (c)) will total approximately 250 and in view of programme timing blood counts must be completed before 22nd August, 1958. Since no facilities exist at present at Christmas Island for this type of test suitable apparatus and laboratory assistance will be required. It is possible that [redacted] will be able to assist. Will Air Ministry [redacted] please now initiate the necessary action for these examinations?

5. Will Air Ministry [redacted] please initiate action with the Admiralty and War Office to determine an agreed and acceptable policy with regard to the blood counting of future Service replacement personnel posted to Christmas Island prior to departure from U.K., bearing in mind the likelihood of the statutory requirement referred to at para 3 (b). For planning purposes, population figures are as follows:-

Royal Air Force	-	2475
Army	-	1800
Royal Navy	-	<u>225</u>
Total	-	<u>4500</u>

[redacted]

[redacted]
Air Vice-Marshal,
Commander,
Task Force Crapple

[redacted]

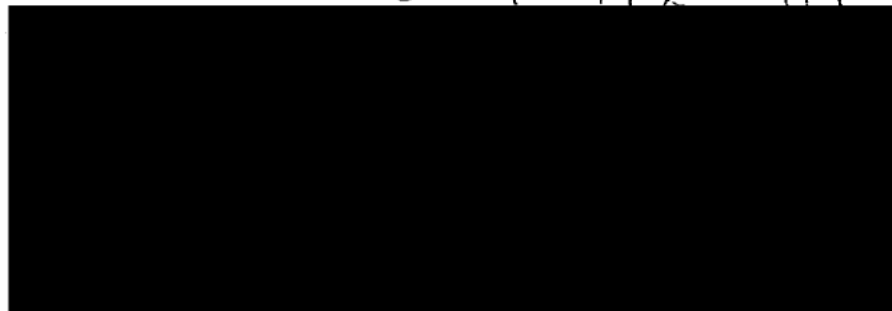
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Minutes of a Meeting held at [redacted]
on 15th July, 1958 to discuss
Radiological Safety Precautions at
Christmas Island

Present



(Chairman) Task Force Grapple

Task Force Grapple
R.A.F. Hospital Halton
Air Ministry

Headquarters Bomber Command
Admiralty
War Office
Task Force Grapple

1. The Chairman opened the meeting by outlining the matter for discussion. This was whether or not Service personnel at Christmas Island should be subjected to blood examinations. This matter had been under consideration both by the Task Force and [redacted] for some time past but it was now a more pressing problem than heretofore because the tests of balloon supported nuclear devices would necessitate a number of people entering and rehabilitating the contaminated area after the first burst. He continued by saying that there were two points of view, the purely medical and the medico-legal. He had been advised that from a purely medical aspect there was little or nothing to be gained by subjecting Service personnel at Christmas Island to blood counts. [redacted] on the other hand considered that from the medico-legal aspect blood counts were necessary. He concluded by saying that as [redacted] insisted on blood counts for their own personnel a compromise might be acceptable. This was to arrange blood counts for those who would be working in the forward area during Grapple "2" and for all future replacements for Christmas Island. It was clearly impossible at this stage to arrange for all Service personnel at Christmas Island during Grapple "2", a total of over 4,500, to be given blood counts.

2. Group [redacted] considered that no compromise was necessary as he thought that the proposal to give blood examinations was unsound.

3. Air [redacted] then asked [redacted] to give their reasons for advising the Task Force Commander that a blood count should be taken.



4. [redacted] replied that he would not argue the case for single blood counts on purely medical grounds but he felt that the matter must be regarded from the medico-legal angle. He said that people with counts habitually above or below normal or those with any blood abnormality must be excluded from the possibility of radiation. For this reason it was an integral part of the medical examination given to all [redacted] personnel. Furthermore, a statutory requirement under the Factories Act was shortly to become law which stated that blood counts were to be given to all civilians working under conditions in which they were exposed to radiation in the normal course of their duties. Finally, he stated that [redacted] were concerned about the political repercussions which might ensue if charges of negligence, however unfounded, could be proved. He agreed that it would not be a feasible proposition to carry out blood counts on Service personnel already at Christmas Island, however, he felt that personnel working in the forward area and future replacements for Christmas Island should receive blood counts.



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5. Air [REDACTED] then stated that his objection was based on the grounds that he was not convinced that a blood count was of any use whatever and he suggested that if a person was examined and found to be normal before posting to Christmas Island and who later developed leukaemia, it might be difficult to refute the allegation that this was due to radiation received at Christmas Island.

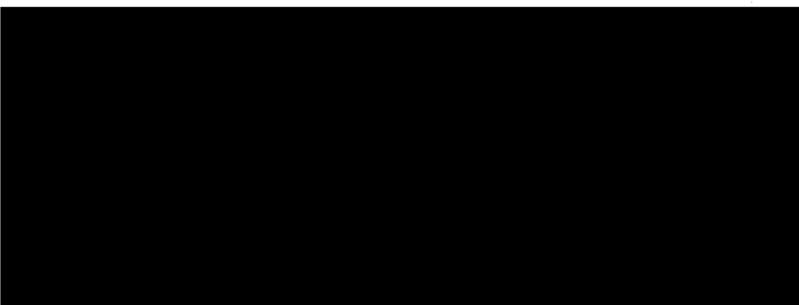

6. [REDACTED] was convinced on the other hand that a blood count was of value by not exposing to radiation people of poor health. He considered that it would prejudice the case if no blood count was taken and a person became ill later.

6. Task Force Commander then stated that the compromise he had proposed and which was supported by [REDACTED], seemed the logical one and after considerable discussion the following decisions were reached:-

(a) All personnel likely to be employed during Grapple "Z" in the forward area where they might be subject to radiation hazards should be given blood counts before the commencement of the tests.

(b) The question of whether all Service replacement personnel posted to Christmas Island should be given blood counts, regardless of their duties or place of work, was to be referred to the Air Ministry for decision in consultation with the other two Services.

H.Q. Task Force Grapple
17 July 1958



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[REDACTED]

[REDACTED]

Blood counts and Radiation Hazards

I have read [REDACTED] letter and [REDACTED] notes.

It is undoubtedly true and has been recognised for many years that routine blood counts are of no value in detecting small over-dosage of radiation in any individual. It is the practice in all [REDACTED] to do blood counts as part of the basic medical examination and at varying routine intervals, the aim being to exclude for medical reasons, persons showing abnormal blood findings which might weight the effects of subsequent accidental over-exposure or be the bases for litigation. It is not entirely true that routine blood counts have no value since there is one well-known case on record at Harwell in which an over-exposure to a neutron beam showed significant blood changes without any excessive exposure being detected by the monitoring devices.

On the question of pre-employment blood counts. [REDACTED] arguments are not entirely sound. It seems to most people in this field of medicine that it is reasonable both professionally and meidco-legally, to exclude persons whose blood findings lie outside a wide range of normality or who are showing evidence of disease changes. This view about pre-employment blood examinations will become a statutory requirement under the Factories Act and I have no doubt that Service personnel who are going to be exposed to radiation should be similarly protected. While it is true that the normal pre-employment blood count will do nothing to help a subsequent claim, it is also true that failure to carry our such counts would be considered in Court (especially in the light of the new statutory requirement) to be a failure to take the precautions necessary before exposure. The chances of picking up a leukaemia by this method are obviously very much greater than 1/1000,000 and 1/40,000 might be a truer figure. I agree however, with the economics of it and I have already pointed out, the cost of undertaking pre-employment blood counts would probably be ten times the cost of compensation for a possible case of leukaemia.

Finally, my personal view is that the blood count examination is just as much part of the pre-employment examination as urine analysis, chest x-ray and clinical examination and I have no doubt that sooner or later the Services will get round to this view.

With regard to [REDACTED] notes. I am certain his facts are accurate and no one has suggested that the 4,000 men at present on Xmas Island should be blood counted. However, I still think it is reasonable to do blood examinations on all replacements before proceeding overseas. In spite of the obviously inadequate medical facilities on Xmas Island, I think it would be reasonable to carry out blood examinations on the small group of people who could be significantly exposed in the forward area.

I would be happy to enlarge on this at our meeting on Tuesday and I have no doubt that you will stress the political angle.

[REDACTED]

[REDACTED]

11th July, 1958.

[REDACTED]