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RAPTAC 1st Mtg/80
29 May 1980

COPY NO 11

MINISTRY OF DEFENCE

RADIOLOGICAL PROTECTION TECHNICAL ADVISORY COMMITTEE

Minutes of the Meeting held in the South East Conference Room,
Ministry of Defence, at 1430 hours on Wednesday, 7 May 1980

PRESENT

Director, DSc6
(In the Chair)

Head of DSc3

Superintendent of Facilities
Safety AWRE

Senior Medical Officer
AWRE

Medical Directorate General (Naval)

Head of Naval Radiological Protection
Service

RNC Greenwich

Board Member for Safety
AWRE

Chairman Naval Nuclear
Technical Safety Panel

Directorate of Health and
Research (RAF)

AWP&F2 (representing
Director of Atomic Weapons
Production and Factories)

CED(Nuclear)

Directorate of Preventive
Medicine (Army)

SSO (Procurement Executive)
(representing CSO(PE))

16 JUN 1980

THE FOLLOWING WERE ALSO PRESENT

[REDACTED]
RMCS, Shrivenham

[REDACTED]
RNC Greenwich

[REDACTED]
Gen Sec(PE)HS

[REDACTED]
FMB Devonport

[REDACTED]
GS(OR)4

SECRETARY

[REDACTED]
DSc3

Apologies for absence:

[REDACTED] DCMS(PE)
[REDACTED] SPS/AWRE
[REDACTED] HDP(N)S
[REDACTED] SHP Chatham

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I MINUTES OF LAST MEETING (RAPTAC 2nd MEETING 1979)

1. The minutes of the last meeting were accepted with the following amendment:-

Page 7, para 19, line 3: after 'half the workforce' insert
' , for certain specified operations

line 12: after 'total dose, but' insert
' , for certain operations'

II MATTERS ARISING

2. THE CHAIRMAN reported on the following actions outstanding from para 3 of the previous minutes:-

Action 3 RAPTAC 19/80 was relevant. The matter would be dealt with informally, within the RAPTAC Secretariat resources, in future.

Action 11 Completed by RAPTAC 49/79.

Revision of Joint Service Manual of Movements
(para 44 of last minutes)

3. [REDACTED] explained that he had contacted Q Movements on the subject of regulations for the transport of radioactive material as a result of discussion at the last meeting (action (16)). Rolls Royce Ltd, under contract to CED, were producing draft instructions for inclusion in BR 3020. The subject was complicated and the draft, which was at an advanced stage, would be circulated when completed to a range of people for comment. Afterwards CED and Q Mov would decide whether the final version should be included in the Joint Service Manual of Movements or whether a cross reference to BR 3020 would suffice.

III NRPB STATUTORY ADVISORY COMMITTEE

4. THE CHAIRMAN explained that, arising out of the Government review of Quangos, the Department of Health and Social Security had sought MOD's views on the abolition of the NRPB Statutory Advisory Committee (bearing in mind a related proposal to enlarge the Board) and on the removal of the existing statutory requirement for the UKAEA to be consulted about appointments to the Board.

[REDACTED] said that AWRE's view was that the establishment of a formal link between MOD and the NRPB, which would provide a means for regular consultation, meant that the SAC would not be greatly missed. [REDACTED] endorsed this view. [REDACTED] said that there were a number of other meetings at which matters of common interest could be raised, such as those of the HSE Inter-departmental Co-ordinating Committee; the annual DHSS meeting with other government departments; or the meetings of professional bodies such as the Society for Radiological Protection (SRP). [REDACTED] said there was a drawback with

open meetings such as those of the SRP in that security considerations might prevent the discussion of some subjects. There was a clear need for regular meetings of the regulatory departments, the NRPB and the Medical Research Council, if gaps in communication were to be avoided, but [REDACTED] was evidently not the right forum. [REDACTED] said that the greatest benefit of the SAC's existence for MOD was the circulation of the NRPB's annual report; arrangements needed to be made to ensure that all NRPB publications continued to be received. DR PARKER explained that [REDACTED] received copies of the abstracts of NRPB reports, but the reports themselves were only sent to MOD libraries.

4. THE COMMITTEE

- (1) Invited [REDACTED] to inform DHSS that MOD had no objection to the abolition of the Statutory Advisory Committee, or to the removal of the requirement for the AEA to be consulted about appointments to the NRPB.
- (2) Instructed [REDACTED] to ensure that MOD continued to receive copies of the NRPB annual report.

IV RAPTAC VISIT TO NRPB ON 13 MARCH 1980 (RAPTAC 15/80)

5. THE CHAIRMAN reminded the Committee that the visit of RAPTAC members to the NRPB on 13 March had been a success and that it was planned to meet annually (not necessarily at NRPB) in future.

6. THE COMMITTEE

- (3) Took note.

7. THE CHAIRMAN invited [REDACTED] to report on any matters of interest arising from a recent joint NRPB/AWRE meeting. [REDACTED] said that it had been useful (though less so than the RAPTAC/NRPB meeting), and it was intended that it should be held on a regular basis.

8. [REDACTED] said that the RAPTAC visit had resulted from a DHSS meeting in July 1979 to discuss the NRPB's programme of work for the following 5 years. He had now been notified of a similar meeting to be held on 23 June to discuss the next five-year programme. After discussion it was agreed that MOD should be represented at the meeting but that no more specific statement of requirements than that already provided was needed.

9. THE COMMITTEE

- (4) Invited THE CHAIRMAN to represent MOD at the DHSS meeting on 23 June.

V NATIONAL REGISTRY FOR RADIATION WORKERS

10. THE CHAIRMAN recalled that the question of providing data on former MOD radiation workers to the National Registry had been raised at the meeting with NRPB, but no definite conclusions had been reached. It would be useful to put MOD's views on this matter on record for future reference.

11. [REDACTED] said that the NRPB had asked for data on retired AWRE employees at the AWRE/NRPB meeting, although their ability to handle the information at present was in doubt. BNFL and UKAEA were carrying out radiation surveys on former employees and had agreed to pass the information, when assembled to the Registry. AWRE had taken the same position, and no date for the handover had been specified; they might wish to make an epidemiological analysis of the data before they were handed over to the NRPB. As far as the Dockyards were concerned, [REDACTED] said that they had been asked to produce a nominal list of classified radiation workers prior to 1976. If this could not be provided it would be very difficult to extract the data required.

VI ROLE OF NRPB IN MOD EMERGENCY ARRANGEMENTS

12. [REDACTED] said that the NRPB had questioned the role they should play in MOD's emergency arrangements, first at the 13 March meeting and afterwards in writing with ACSA(N). Since then, [REDACTED] (who were responsible respectively for RAF and Naval emergency arrangements) had been consulted and the Board's argument, that they could only give realistic advice if they were present at MOD in an emergency, had been accepted in principle. On the basis that the Incident Commander on the spot would have access to sufficient expert advice, a scheme under which the NRPB would send a representative to the Information Guidance Party would be tried out during Exercise Senator VII: if successful this could be incorporated in the permanent arrangements. The involvement of the NRPB in the next nuclear reactor accident exercise would also be considered in the light of experience at Senator VII.

13. [REDACTED] said that, in the circumstances, the attendance of NRPB members at the nuclear accident procedures course at Greenwich (even though this was restricted to reactor and naval weapon accidents) could be of important mutual benefit. The Greenwich courses were announced in an annual DCI(RN) and he would ensure that it was brought to RAPTAC's attention.

VII NAIR HANDBOOK

14. [REDACTED] said that [REDACTED] allocation of the up-to-date handbook covering National Arrangements for Incidents Involving Radioactivity had been issued to RAPTAC members,

including those liable for call out in an emergency. The latest version could be identified by page 3 which was marked Rev 1, 1978. If further copies were required application should be made direct to the NRPB.

15. THE COMMITTEE

(5) Took note.

16. [REDACTED] said that the CEEB was engaged in setting up a parallel scheme to NAIR in connection with movements of fuel through London and would be consulting MOD. [REDACTED] added that the object of NAIR was to back up small organizations with few resources of their own; large bodies such as the CEEB were required to make separate arrangements.

VIII

RADIOLOGICAL PROTECTION CRITERIA FOR USE IN EMERGENCIES
(RAPTAC 16/80)

17. Opening discussion of RAPTAC 16/80, [REDACTED] said that the paper amended the Medical Research Council's recommended dose criteria in the light of ICRP 26, and in principle it was difficult to quarrel with the proposed approach of setting upper and lower reference levels. The suggestion of 50 rem effective dose equivalent for the upper level also seemed reasonable; and it was important to recognize that provision was made for no countermeasures to be taken above this level in historical cases. In the case of the lower level of 0.5 rem, [REDACTED] explained that the original concept of an emergency reference level was of a level at which remedial action must be considered, but below which it was optional; this had been set at 10 rem. No upper limit had been fixed, but an informal limit of 100 rem had gradually come to be accepted. Now the 100 rem figure would effectively be lowered to 50 rem, and the 10 rem figure to 0.5 rem, a very considerable reduction. There would inevitably be pressure to abide by the lower figure, as corresponding to the old 10 rem level, and this could have serious consequences.

18. [REDACTED] said that it was worth remembering that no study of the effects of evacuation had been done in Britain, though the Three Mile Island incident might cause the subject to be reconsidered. [REDACTED] felt that good information must be available since the police organized about one evacuation a month. All that was needed was a threshold figure representing the point above which evacuation improved the lot of those involved in an emergency (allowing for possible casualties in the evacuation).

19. It was agreed that more detailed discussion of the subject could best be done in a smaller group consisting

of [REDACTED], [REDACTED], and [REDACTED], and that the time-scale for discussion depended on the NRPB timetable.

20. THE COMMITTEE

(6) Invited [REDACTED] to check with NRPB on the target date for comments and to arrange a timely meeting of the interested parties.

IX MICROWAVE RADIATION (RAPTAC 10/80, 14/80)

21. THE CHAIRMAN said that RAPTAC 10/80, which circulated the European Commission's draft proposals for a Directive on Microwave Radiation, also announced the formation of a sub-group of the Interdepartmental Co-ordinating Committee on Radiation Protection to consider the proposals. The MOD representatives on the sub-group would now be [REDACTED] and [REDACTED]. [REDACTED] said that the draft was a simple, straightforward document. [REDACTED] agreed that RAPTAC 10/80 had been overtaken by events and the arguments would centre on the points raised in the NRPB paper issued under cover of RAPTAC 14/80.

22. THE COMMITTEE

(7) Invited [REDACTED], [REDACTED], as the interested parties, to co-ordinate MOD comments on RAPTAC 14/80 and forward them to the NRPB, with a copy to the RAPTAC Secretary.

X REDUCTION OF DOSE LIMITS (RAPTAC 5/80, 8/80)

23. THE CHAIRMAN said that RAPTAC papers 5/80 and 8/80 summarised the present position with regard to the TUC proposal to reduce the annual dose equivalent level for radiation workers to 1 rem. The present annual dose limit of 5 rem would be retained but a formal system of monitoring ALARA was likely to be introduced. The latter could cause problems in the workplace and the consultative document containing the draft regulations, due to be published later in the year, would have to be considered carefully.

24. THE COMMITTEE

(8) Took note.

XI DOSE REDUCTION WORKSHOP - PARIS 12-14 DEC 1979

25. THE CHAIRMAN explained that [REDACTED], [REDACTED],

who had volunteered to give the meeting a short account of this Workshop was unavoidably unable to be present.

26. THE COMMITTEE

- (9) Invited [REDACTED] to prepare a note on his impressions of the Workshop for circulation to the Committee.

XII

COMMUNICATION OF RADIATION DOSE INFORMATION TO TRADE UNIONS

27. [REDACTED] reported that at a meeting of the Shipbuilding Trades Joint Council held in October 1979, the Trade Union side had asked for dose information to be supplied to them. They claimed that this information was received regularly from UKAEA and BNFL. At the same meeting the TU side asked for details of RAPTAC and the Dose Reduction Steering Group at Bath, so that they could assess whether their involvement in either of these Committees would be useful; and a letter on this point had since been received from CM(Industrial Relations).

28. [REDACTED] said that information on the first point had been sought from UKAEA and BNFL and it appeared that UKAEA supplied statistical data on dose to their staff and trade union sides, through a Joint Committee on Health and Safety. They regarded individual records as confidential to the worker and the employer, and access had never been sought by safety representatives. No reply had been received from BNFL. MOD were likely to be pressed to provide at least as much information as UKAEA did.

[REDACTED] said that AWRE had undertaken to provide all radiation workers with an annual statement of their total dose commitment, whether requested by them or not. The meeting noted that there might be resulting pressure from Trade Unions for similar detail to be provided at other MOD establishments and in other organisations.

[REDACTED] noted that this might present serious problems for the Royal Navy. The details were still being worked out by AWRE's legal advisers.

29. As far as Trade Union membership of RAPTAC was concerned, [REDACTED] said that the presence of TU representatives would change the Committee's character and inhibit the free exchange of information. It was agreed that RAPTAC could not take a view on the desirability of Trade Union representation on the Dose Reduction Steering Group, which was a DPT committee.

30. THE COMMITTEE

- (10) Invited [REDACTED] to press BNFL for written details of their practice with regard to the release of dose information.

- (11) Invited [REDACTED] to provide the Committee with details of the AWRE agreement with the Trade Unions, once this had been finalised.

(12) Instructed THE CHAIRMAN to notify CM(Industrial Relations) that Trade Union membership of RAPTAC could not be accepted.

XIII DERIVED LIMITS FOR SURFACE CONTAMINATION (RAPTAC 18/80)

31. [REDACTED] said that in producing their report on this subject the NRPB did not seem to have taken previous discussions into account, with the result that uranium and thorium were in an anomalous position in relation to other elements. He felt that MOD should comment to NRPB and HSE before draft regulations were published later in the year. The date for the introduction of new national regulations was 1982.

32. THE CHAIRMAN

(13) Invited members to send any comments to the Secretary by 16 June 1980.

XIV COST BENEFIT ANALYSIS IN RADIATION PROTECTION (RAPTAC 17/80)

33. [REDACTED] said that the conclusions of the NRPB consultative document referred to in RAPTAC 17/80 seemed reasonable. However the impact of the proposed threshold values on existing standards of protection for the public, as well as any related counter-productive effects on standards for workers, needed to be considered. [REDACTED] view was that it would be difficult to make any useful comment until the system had been tried out in practice, and it would take many man-years of work to provide the answers. THE CHAIRMAN said that if there were reservations these ought to be expressed before the scheme was finalised.

34. THE CHAIRMAN

(14) Invited [REDACTED] to formulate MOD's views on the consultative document and send them to the Secretary by mid-June.

XV SI UNITS (RAPTAC 51/79, 3/80)

35. THE CHAIRMAN reported that a final draft of the proposed DCI on SI units which incorporated all amendments received had been sent to DD2 Stan for publication as a DCI. [REDACTED] said that attempts were being made to arrive at a decision on the use of the term 'centigray' within NATO, but this problem would be resolved in another forum.

36. THE COMMITTEE

(15) Took note.

XVI

HEALTH PHYSICS - RECRUITMENT AND STRUCTURE

37. THE CHAIRMAN said that the letter on this subject had now gone from [REDACTED] to [REDACTED] rather than [REDACTED]. [REDACTED] said that the main problems were an apparent lack of urgency by civilian management divisions in recruiting health physics staff, and the loss of trained staff to more attractive jobs with such bodies as the Radiochemical Inspectorate. THE CHAIRMAN said that he would report on developments at the next meeting of the Committee.

38. [REDACTED] said that the RNC had put forward proposals for a health physics diploma course which was supported by the Navy Department. He wanted to make sure that the course would also serve the rest of MOD. [REDACTED] said that AWRE had looked at how well the course would meet the need for long-term staff training, and were agreed that although the emphasis was on PWRs the course material was of more general application. They thought that the course would serve an important need. [REDACTED] said that RNC would provide the Secretary with details of the course once it had been agreed that it should start.

39. THE COMMITTEE

(16) Took note.

XVII

HSE ARRANGEMENTS FOR INSPECTION OF PREMISES

40. [REDACTED] reminded the meeting that a proposal had been put by ACSA(N) to HSE for a Memorandum of Understanding to define MOD/HSE relations in respect of naval nuclear propulsion work in the Dockyards and [REDACTED], as a result of MOD concern about encroachment by the Nuclear Installations Inspectorate. The HSE had made a counter-proposal for a system under which MOD would be given a single point of contact for all inspection matters at the establishments concerned, and they were now working out the details. It would be some time before anything specific was available.

41. [REDACTED] said that while it was sensible to have a single contact point, one valuable aspect of the MOU covering Aldermaston, Burghfield and Cardiff was that it provided an alternative route for appeals against arbitrary decisions by inspectors, when the normal course of reference to a tribunal was ruled out on grounds of security. [REDACTED] agreed that this was a valuable arrangement, and that the question should be taken up in the next round of negotiations with HSE.

42. THE COMMITTEE

(17) Took note.

XVIII EURATOM DIRECTIVE ON IONIZING RADIATION (RAPTAC 9/80)

43. ██████████ said that the position on the Directive was effectively unchanged from RAPTAC 9/80.

44. THE COMMITTEE

(18) Took note.

XIX REMINDER TO MOD STAFF OF THE IMPORTANCE OF NUCLEAR AND RADIOLOGICAL SAFETY

45. THE CHAIRMAN reported that the DCI on this subject had been published as DCI CIV 25/80, and DCI RN J 55/80, Army J 19/80 and RAF J 23/80.

46. THE COMMITTEE

(19) Took note.

XX RAPTAC'S RESPONSIBILITIES FOR NON-IONIZING RADIATION

47. THE CHAIRMAN reminded the meeting that the consensus of opinion in correspondence following discussion of laser radiation at the last meeting, was that the Ordnance Board's Military Laser Safety Committee (possibly enlarged to include DCMS(PE)) was the most appropriate body to deal with laser safety matters. The advice of Gen Sec(PE), however, had been that this proposal would be resisted by the MOD Health and Safety Working Group if it meant a change in the composition of the MLSC, especially since all four Medical Directorates were represented on RAPTAC and since RAPTAC was to continue as a focal point for the effects of other non-ionizing radiation. ACSA(N) had accepted this advice and had agreed that RAPTAC should retain its present responsibilities.

48. THE COMMITTEE

(20) Took note.

XXI TRANSPORT OF RADIOACTIVE MATERIALS

49. THE CHAIRMAN reported that ██████████ from AWRE and ██████████ had been nominated as MOD representatives on the Working Party on the Transport of Dangerous Goods. ██████████ was also the MOD representative on the AEA's Transport Regulations Interpretation and Clarification Working Party, which would be a useful contact.

50. THE COMMITTEE

(21) Took note.

XXII OTHER PAPERS ISSUED SINCE LAST MEETING

51. A list of the papers issued since the previous meeting (RAPTAC 48/79 - RAPTAC 23/80) was before members. [REDACTED]

52. THE COMMITTEE

(22) Took note.

XXIII 1980 MEETING OF THE INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION

53. [REDACTED] reported that he had attended the ICRP's annual meeting in Brighton in March. The main subjects discussed were the work being done by the ICRP on the dose equivalent limit for the lens of the eye, on non-lethal effects to the skin, and on a survey of the information available on estimates of radiation risk. /Secretary's Note: The ICRP statement on the Brighton meeting has been circulated as RAPTAC 26/80/

XXIV RECENTLY PUBLISHED DCIs

54. MR SAXBY said that three DCIs of interest to RAPTAC members had recently been published. These were:

- | | |
|------------|---|
| CIV 152/80 | Health and Safety at Work Act 1974:
Office Machinery Supplied by HMSO -
Power Operated Guillotines |
| CIV 153/80 | Health and Safety at Work Act 1974:
Responsibilities of MOD/PSA/PSA
Contractors |
| CIV 179/80 | Health and Safety at Work Act 1974:
Release of Board of Inquiry Information
to Safety Representatives |

XXV DATE OF NEXT MEETING

55. 6 November 1980 was agreed upon as a provisional date for the next meeting.