

[REDACTED]

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**Minutes of the Eighteenth Meeting of the
Depleted Uranium Firing Environmental Review Committee
held at [REDACTED] on Thursday 4 March 1999**

Present

[REDACTED]	DERA Eskmeals	(Secretary)
[REDACTED]	RSO, DERA (Eskmeals)	
[REDACTED]	DRPS	
[REDACTED]	DRPS	
[REDACTED]	Commandant, Kirkcudbright Training Area	
[REDACTED]	MoD, D/SEF Pol	
[REDACTED]	MoD, SSO(PE&C)	
[REDACTED]	DRPS	
[REDACTED]	RO Chorley	
[REDACTED]	DERA Eskmeals	

Item 1: Apologies for Absence

1. Apologies for their absence were received from [REDACTED] and [REDACTED].
2. In [REDACTED] absence, the meeting was Chaired by [REDACTED].
3. [REDACTED] now responsible for Kirkcudbright Operations and soon to be the Senior Military Officer at Eskmeals, was introduced and welcomed to the Committee.

Item 2: Minutes of the 17th Meeting

4. The minutes of the meeting held on 26 November 1998 were approved as an accurate record of the proceedings.

Item 3: Matters Arising

5. Actions from the 17th and previous meetings were discussed:
 - a) Action 17/4. [REDACTED] reported that no progress had been made on assessing the migration of DU contamination at Kirkcudbright, due to the imposition of higher priority tasks. Action **continuing**.
 - b) Action 17/9. In [REDACTED] absence, [REDACTED] was only able to report that there was a great deal of support within the RWWG for an interim storage facility at DERA Eskmeals. Action **continuing**.
 - c) Actions 17/10, 17/11 and 17/12. It was noted with regret that [REDACTED] had been unsuccessful in his application for the Fulbright Award and that he would therefore be unable to take his sabbatical year in the

[REDACTED]

UK. It was hoped that this might be possible in the future. [REDACTED] visit to the US had had to be cancelled. Actions **discontinued**.

- d) Action 17/13. [REDACTED] had been able to give [REDACTED] written confirmation that the DU used in UK production of CHARM projectiles is not reactor cycle material. Action **complete**.

Item 4: Procedure for Handling Recovered Rounds

6. In his absence, [REDACTED] reported that [REDACTED] was unclear as to why the action (17/5) to collate PR information had been placed on him and that he had not yet received any information from [REDACTED]. [REDACTED] was however able to inform the Committee that the Press Office do not hold any form of 'defensive brief' regarding possible enquiries about a recovered DU projectile. Action transferred to [REDACTED] and **continuing**.
7. [REDACTED] said that a transit container for recovered projectiles had been manufactured which seems suitable for the purpose. A plain, strong, lockable wooden box large enough to accommodate the longest projectile so far used, it contains a plastic bag into which the projectile can be placed to retain any material that may be dislodged from it, and foam rubber padding to hold it and minimise movement and further damage whilst in transit. Plastic gloves and a written procedural guide will also be added before it is deployed. The second container is being manufactured and will be held at Kirkcudbright. Action 17/6 **continuing**.
8. [REDACTED] reported that difficulties had been encountered with respect to establishing the probable sequence of events in the event of another projectile being recovered from the Solway. The reporting chain starting with first actions by the skipper of the recovering vessel were unclear, and, depending on the route that the report followed, the information and advice given at each stage was inconsistent. Further research and clarification is therefore necessary, including liaison with the Coastguard and EOD Faslane (and their Ops Centre), establishment of a formalised reporting chain to include the DERA Press Office, preparation of hazard assessments, and the briefing/training of Eskmeals duty officer/s. Action 17/7 **continuing**.

Action 18/1: DRPS [REDACTED] to prepare appropriate hazard assessments.

Action 18/2: [REDACTED] to arrange for briefing/training of Eskmeals duty officers.

9. Regarding the question of where Eskmeals' responsibility for recovery ended and Kirkcudbright's started, [REDACTED] proposed a simple geographical split; if the port at which the projectile is to be landed is in Scotland, Kirkcudbright would respond, otherwise Eskmeals would respond. This was **agreed**.

Item 5: Investigations into Possible Tank Contamination

- [REDACTED]
10. The various trials conducted to investigate the possibility of DU contamination within a Challenger turret have now been completed and the final report issued. Although this report is under a SECRET caveat, Mr Anderson was able to confirm that the results indicated that no such contamination was present.
 11. Referring to the Gulf War, [REDACTED] said that the Gulf Veterans Investigation Unit had been busy, in part as a result of the report that a Gulf veteran had allegedly 'tested positive' for DU. A number of PQs on the subject have been raised. An extract from Hansard is enclosed with these minutes for information.

Item 6: Kirkcudbright Operations

12. [REDACTED] said that there had until now been an ad-hoc collection of discarded sabots from Kirkcudbright Range, a substantial proportion of which had been found to be contaminated. There was a need to establish the precise levels of contamination and this could be achieved by radiochemical analysis carried out by BNFL Springfields, but the difficulties of funding this work prevented it from proceeding.
13. [REDACTED] drew the Committee's attention to the fact that the vast majority of discarded sabots were due to work carried out prior to Eskmeals' use of the site. Although there was some opportunity for collection during current proof work, time was extremely limited and effectively precluded monitoring and sentencing of those sabots that had been collected.
14. Although there was both a need and willingness to carry out a comprehensive sweep of the affected areas, the question was once again one of costs; who would fund the collection, sentencing and ultimate disposal of sabots?
15. [REDACTED] noted that should the SEPA take an active interest in the situation at Kirkcudbright they could simply insist that remedial work be undertaken within a short timescale. In such a situation we would have no option but to carry out the work and attempt to recover the costs retrospectively. It would therefore be prudent to establish where the responsibilities lay as soon as possible.

Action 18/3: [REDACTED] to contact PM(CHARM) pointing out that there are outstanding responsibilities resulting from earlier proof and trials work and that funding is required.

16. In the meantime, it was agreed that discarded sabots should continue to be collected in conjunction with future proof work, preferably with 'new' sabots marked before firing to assist in identification.

Item 7: VJ Battery

- [REDACTED]
17. [REDACTED] and [REDACTED] had met to discuss methods of assessing the likely quantities of residual DU trapped within the VJ Battery structure and surrounding area. A report was circulated to those present by [REDACTED] (copy enclosed for non-attendees). The report presents a number of options for producing a realistic quantitative estimate of the DU present; it is in effect a scoping exercise, and estimated to cost in the region of £100k.
 18. [REDACTED] initial comment was that, as DERA Eskmeals does not have the funding available to cover this, who will pay?
 19. [REDACTED] added that, as mentioned in the report, if the EA hear of the plans they are likely to look upon it as the start of decommissioning and press for an end date; they have already asked for what is, in effect, a LQS of the VJ Battery Controlled Area.
 20. [REDACTED] said that the RWMAC was likely to return in 2000 to look at MoD waste management practices and was at that time likely to enquire about decommissioning. [REDACTED] and [REDACTED] responded by stating that the decommissioning objective for VJ is currently unknown and repeated that this work simply constitutes an assessment of what may be present.
 21. Referring to the comment about funding, [REDACTED] said that no money would be available from MoD Central for this exercise.

Action 18/4: All members to prepare comments on [REDACTED] report and present them at the next meeting.

Item 8: Experimental Investigations

22. [REDACTED] presented a brief report of progress to date. She has now completed a review of available literature review, and carried out visits to both Eskmeals and Kirkcudbright to identify terrestrial garden areas; Little Raeberry at Kirkcudbright and VJ at Eskmeals. Meteorological equipment is being purchased in order to obtain data. Royal Ordnance had agreed to provide the DU rods, which will be 'sliced' by DERA Fort Halstead.
23. [REDACTED] was able to inform [REDACTED] that Gypsy Point was now the favoured site for a bombing range, placing the target area further from the proposed DU garden.
24. [REDACTED] then moved on to the establishment of a marine garden at Kirkcudbright, which was proving to be more difficult. She was having discussions with DERA Bingleaves and the University of Portsmouth for suggestions and advice on setting up this facility. The use of a boat-type mooring or buoyed heavy cage was most likely, but either will require the use of boat for access.

- [REDACTED]
25. [REDACTED] added that the land gardens would probably be set up by April, although the priority is or should be with investigations into the marine corrosion aspects.

Item 9: Need for the Recovery of Fired Projectiles

26. [REDACTED] informed the Committee that this was not seen as a technical requirement of the CHARM project. The suggestion had resulted from the barrel contamination work that had recently been undertaken. It was therefore DERA-driven and, although it might give an improved understanding of barrel and environmental contamination issues, it has no effect on round performance. Consequently, funding would not be available from RO.
27. Despite this, RO had looked at a number of options that might aid recovery in the event that this was attempted but could only present negative information:
- The design has been optimised to defeat any restrictions to flight. Arresting the projectile would therefore be extremely difficult.
 - The strength of design of the sabot is already at its functional limit and any modification to the sabot's parasitic mass would not be cleared for firing.
 - The drive thread is optimised to push, rather than pull, the sabot and firing with a retained sabot - if this were possible - would make the projectile aerodynamically unstable.

Action 18/5: [REDACTED] to discuss the feasibility with [REDACTED]

Item 10: Any Other Business

28. [REDACTED] informed the Committee that there had been a DU fire at [REDACTED]. Giving brief details, he confirmed that there was some contamination within the workshop building although no DU had been detected outside. Some MPs had raised questions but not, as yet, as PQs.
29. [REDACTED] reported that a SHA of the machining facilities at Fort Halstead had been carried out and were currently with the HSE.
30. [REDACTED] said that at the last Kirkcudbright Council meeting, questions were asked on when the environmental DU reports were likely to be received. [REDACTED] replied that the terrestrial and marine reports for 1997, regrettably delayed by other work, were nearing completion and should be ready in a few weeks. The last samples from the 1998 collections were scheduled for analysis in March. It was suggested that another presentation to D&G Council could be useful when the reports are finally issued.

- [REDACTED]
31. [REDACTED] asked that, as there are now no workshops available at Kirkcudbright, would it be in order for the barrels to be sealed and transported to Eskmeals for monitoring? [REDACTED] replied that historical data indicates that any contamination present does not exceed the limits for surface contaminated objects and that it would be acceptable for them to be transported.
 32. [REDACTED] raised a question concerning the final disposal of the DU used in [REDACTED] investigations. [REDACTED] said that each would have a mass of about [REDACTED] prior to corrosion; [REDACTED] advised that exemption orders were available but the current limits were being revised downwards. Further information/advice should be sought closer to the time.
 33. [REDACTED] informed the Committee that [REDACTED] from the University of New Mexico (apparently the head of [REDACTED] Department) would be visiting the UK in mid-March and had requested a visit to VJ Battery. [REDACTED] said that she had seen papers written by him in her literature review and would welcome the opportunity to meet him if possible.
 34. [REDACTED] reported that the Eskmeals SHA was now complete, in the form of a final draft, and that two copies had been passed to Eskmeals for comment.
 35. [REDACTED] said that following the barrel contamination work carried out at Kirkcudbright, DRPS had been tasked with monitoring ex-Gulf barrels and had devised an improved method of screening them. Approval was being sought to carry out a cross-comparison trial at Eskmeals. Any costs incurred by Eskmeals would be built in to the project costs and met by DRPS. There were no objections to this.
 36. [REDACTED] showed an American book and video, *DU - Metal of Dishonor* sent to him by [REDACTED]. The video has been converted to the UK television format and a VHS copy is available on loan from either Eskmeals or himself. [REDACTED] said that he was also happy to loan the book (ISBN 0-9656916-0-8).

Item 11: Date of Next Meeting

37. It was agreed that the next meeting would be held at [REDACTED] commencing at 1000 on Thursday 24 June 1999.

There being no further business the Chairman thanked everyone for attending and the meeting was closed at 1540.