

**Minutes of the 56<sup>th</sup> Depleted Uranium Firing Environmental Review Committee  
(DUFERC) Meeting held at QinetiQ MoD Eskmeals  
on the 21<sup>st</sup> September 2010**

**Present:**

[REDACTED]	QinetiQ Eskmeals Capability Manager (Chairman)
[REDACTED]	QinetiQ Radiation Advisor
[REDACTED]	Dstl Environmental Sciences Department Principal Scientist
[REDACTED]	SO2 RAD (CESOA)
[REDACTED]	MoD Commandant KTA
[REDACTED]	QinetiQ VJ Facility Manager
[REDACTED]	MoD SSD&C
[REDACTED]	QinetiQ Proof & Trials Clerk (Secretary)
Ms Angela Kenworthy	

**Apologies:**

[REDACTED]	MoD TEST Team
[REDACTED]	MoD SSD&C
[REDACTED]	QinetiQ Deputy Radiation Advisor
[REDACTED]	MoD DE
[REDACTED]	QinetiQ CHSEA
[REDACTED]	QinetiQ HS&E Assistant

**1. Introduction**

[REDACTED] welcomed the committee to QinetiQ MoD Eskmeals for the 56<sup>th</sup> meeting of the DUFERC.

**2. Previous Minutes**

The minutes of the 55<sup>th</sup> DUFERC Meeting were approved by the committee.

**3. Actions Outstanding**

**Action 52.2 – [REDACTED] to produce a presentation for future firing of DU.**

The presentation is in the form of a power point and has been submitted to the committee.

[REDACTED] Stated that he has made some amendments that he would like to see in the final presentation – he will send annotated copy to [REDACTED]

Action Ongoing

**Action 53.1 – [REDACTED] to produce a 'Management and Remediation Plan' for the DU contaminated areas at KTA and present for discussion at the next meeting.**

[REDACTED] has produced a draft and hopes to have final version by end of October.

Action closed

**Action 55.1. [REDACTED] to speak to Defence Estates to clarify who is the RPA for KTA**

[REDACTED] of DE has been identified as a suitable PoC.

Action ongoing

**Action 54.4 - [redacted] to set up the occasional contract.**

In [redacted]'s absence [redacted] advised that [redacted] of DE is currently putting together business case to include both the provision of an RPA and surveys at Kirkcudbright.

[redacted] asked if SSD&C have any input to this. [redacted] replied that they are aware of it but have no direct input.

[redacted] stated that the DUFERC should monitor this situation. [redacted] added that the RPPDC should also be made aware of this issue. [redacted] stated that he would continue to report on this issue

Action on-going.

**New action 56.1. [redacted] Awaiting outcome of DE Business Case – review when received.**

**Action 54.6 – [redacted] to approach [redacted] and request a timeline on when the assessment of activity will take place. (LLW Waste inventory)**

[redacted] not present

[redacted] Advised the committee that in addition to LLW arising from the decontamination/ decommissioning of VJ surveillance firings of DU were due to take place at KTA in 2013 and that this activity has the potential to produce LLW

[redacted] stated that DGM was also planning for the future disposal of CHARM rounds (DU)

[redacted] advised that as [redacted] was no longer the TEST Ranges Manager this action is in fact closed and a note advising of the LLW forecast should be sent to RPPDC.

Action closed.

**New action 56.2. [redacted] to draft letter to RPPDC for next meeting.**

**Action 54.8 - [redacted] to receive and pass on QQ statement regarding LLW to MoD contractor.**

See new action from 54.6 (56.2)

Action closed.

**Action 54.10 - [redacted] to update DUFERC ToR and circulate for discussion at the next meeting.**

Action closed.

**Action 55.1 [redacted] to speak to DE to clarify who is the RPA for KTA**

See 54.4

Action closed

**Action 55.2 [redacted] to distribute the VJ firing data with the minutes**

Issued with minutes.

Action closed

**Action 55.3 [redacted] to write to DE stating that there needs to be a focal point for the Eskmeals LLW Inventory- Can they confirm that they are the focal point.**

See 54.6 and 54.8

Action closed

Action 55.4. [redacted] to circulate his suggestions regarding the amendments to the DUFERC ToR.

Action closed

Action 55.5 [redacted] to amend the DU firing presentation to reflect the DUFERC input and return it to [redacted]

Ongoing

Action 55.6 [redacted] to discuss the proposed (Eskmeals) sampling with [redacted] (RPA for Eskmeals) June 2010

[redacted] – doing extra sampling. Awaiting 3 air samplers (BBW)

[redacted] Is yet to discuss the matter

Ongoing

#### 4. DUFERC Future

(The future need for the DUFERC had previously been raised by [redacted])

[redacted] Advised the committee of [redacted] (SSDCD) views regarding the status of the DUFERC i.e. that he considered that it fulfilled an important function and that it should continue. To this end would the committee wish to become a sub-group of RPPDC?

[redacted] – stated that as the Army RSO both he and the Commandant of KTA gained a great deal out of the DUFERC, particularly with regard to the specialist input from Dstl & QinetiQ. He added that in his experience the regulatory bodies such as SEPA see the DUFERC as a reliable internal regulator of DU related activities at both the Kirkcudbright training Area and the Eskmeals firing Range. Therefore he too would like to see DUFERC continuing as it is

[redacted] asked- not as a formal subgroup of RPPDC?

[redacted] said he thought ideally not but would it be possible to invite second MoD member from SSDCD

[redacted] replied that this would be unlikely as [redacted] SSDCD did not have sufficient resources

[redacted] suggested that it could continue to exist as DUFERC and simply report to RPPDC possibly through one of the DUFERC members that also sit on the RPPDC such as SSDCD

[redacted] Suggested that to improve TEST's understanding of the DUFERC the committee should invite [redacted]'s successor [redacted] to the next meeting.

**New Action 56.3 [redacted] to invite [redacted] Operations Delivery Manager TEST to the next DUFERC meeting**

#### 5. VJ Historic Firing Data.

[redacted] issued this data which is in the form of a table giving the number of rounds fired, total weight of DU and the activity of LLW. The data is historic but only refer back to 1981. Although firing dates back further than this there is no further reliable data recorded at Eskmeals

[redacted] asked if the recovery figure of 80% listed was typical.

[redacted] replied that the 805 referred to a special total recovery exercise 60% would more be a more realistic figure for routine waste recovery.

[redacted] suggested that given the 60% recovery rate it was possible that up to 74 GBq missing could still be dispersed within the butts and the surrounding area

[redacted] agreed that this was possible

[redacted] asked what activity using

[redacted] replied that the specific activity quoted on the sheet was 14 MBq/Kg.

**6. Eskmeals Report**

████ presented this report:-

All on site waste processing by AMEC is now complete and he is now awaiting the LLW containers from Sellafield. When these arrive an AMEC team will return to VJ to load the non metallic LLW into them. It is expected that all loading will be completed by Christmas. The Eskmeals site is currently applying to the Environment Agency for an amended RSA Authorisation to allow for the metal components of the LLW to be further processed off site

**New Action 56.4** █████ QinetiQ Eskmeals to write to DE Identifying issues relating to metallic LLW going off-site for processing.

**7. Kirkcudbright Report**

████ – gave report. 16-20<sup>th</sup> Aug annual sampling took place. █████ at Kirkcudbright. █████ Added for the record that he would be retiring on the 26<sup>th</sup> August 2011 and that the MoD is trying to find someone to replace him.

**8. Dstl Report**

*Ministerial Briefing*

Dstl assisted in briefing Min (AF) on the Government position on the use of DU anti-tank ammunition. This was for a meeting between Min (AF) and Lev Eakins of the UK Uranium Weapons Network at the Lib Dem Party Conference.

*Iraq Inquiry*

Dstl finalized a briefing paper on Government discussions on the use of DU munitions and amended their Dyson Inquest report to provide more detailed supporting information on DU contamination risks. Following a request from the Inquiry, Dstl provided a copy of the report of MOD's DU contamination monitoring in Iraq. These tasks arose as a result of the Inquiry receiving a number of letters in which it was alleged that use of DU munitions is illegal and presents extreme health risks to civilians. A paper submitted by groups opposed to the use of DU munitions has been received but not yet reviewed.

*Parliamentary Questions*

There were PQs on: the UK's use of DU munitions in 1991 and 2003; transparency in the use of DU munitions; international efforts to reduce the potential risks to civilians and the effectiveness of DU clearance programmes in Iraq.

*Freedom of Information*

There was a request for a copy of the MOD report to the Coroner who found that it was more likely than not that DU exposure was a factor in a Gulf veteran's death.

*Media*

Dstl assisted in revising the MOD news brief on DU munitions.

*War Pensions*

There was a claim by a soldier who believed that his health had been adversely affected by work on Chieftain gun tanks during preparations for the 1990/1991 Gulf conflict. Dstl advised that the claim should be rejected as his health problem was not known to be linked to radiation exposure and because no Chieftain gun tanks were used during this conflict. This was another case where the veteran was being supported by █████ one of a very small group who believe that the current scientific consensus underestimates radiation risk. Dstl also assisted in answering a question about the storage of battle-damaged Iraqi tanks near Basra.

#### *MOD Documentation*

Dstl provided DGM with an adapted version of the Iraq Inquiry report for use in their biennial DU munitions safety and environment review. This describes arrangements for the assurance of health and safety and environmental protection.

#### *DU Disposal and Transport*

DGM began a study [redacted] service munitions and progressed the Phalanx disposal. Some RADSAFE issues identified during planning for the Phalanx disposal are likely to prompt a revision of JSP 800.

#### *US Developments*

The US Department of Veterans Affairs will not establish a presumption of service connection between DU exposure and any of the diseases, illnesses, or health effects discussed in the Institute of Medicine of the National Academy of Sciences report entitled "Gulf War and Health: Updated Literature Review of Depleted Uranium". In summary, the suggestion that DU can cause a number of health effects other than cancers is being rejected.

#### *Health Studies*

The International Journal of Environmental Research and Public Health published a paper investigating the suggestion that increases in birth defects and cancer in Fallujah "were due to the use of novel weapons (possibly including DU)". It was stated that the results seemed to qualitatively support the existence of serious mutation-related health effects in Fallujah, but that their survey had "structural problems" and that care should be exercised in interpreting the findings quantitatively. This may be due to the study involving the use of questionnaires answered by local householders rather than a study of medical records. [redacted], who represents veterans in nuclear test and DU-related claims, is cited as one of the authors.

#### 9. **Any Other Business**

[redacted] – presented a report produced by [redacted] entitled "Phyto-remediation at Eskmeals. In essence this presentation raises the possibility of using plants natural tendency to accumulate chemistry from their surrounding environment to decontaminate soils. This procedure has been used successfully at Chernobyl and some American industrial sites. This concept was originally brought to [redacted] notice by [redacted].

[redacted] stated that he thought that this was a very good idea and that MoD should be encouraged to investigate it

[redacted] agreed and said that there was no reason why a pilot scheme could not be run at VJ however funding would need to be found.

[redacted] made the observation that this was potentially a green solution to the long term problem of VJ remediation and that there were definite advantages to this approach such as public perception, cost and compliance

[redacted] agreed but stated that the chemical environment would need to be evaluated. He also raised concern over the eventual disposal of DU contaminated plants.

[redacted] added that if phyto-remediation was successful at Eskmeals it could also be used at KTA

It was as accepted by the committee that phyto-remediation should be considered as a possible method of remediation at Eskmeal and that it should be investigated further.

[redacted] agreed and suggested that we could consult with [redacted] of Manchester university.

[redacted] is due to carry out some further work concerning DUs behaviour in the environment at Eskmeals later this year)

**New Action 56.5 – [redacted] to speak to [redacted]**

10. Date of next meeting

The next meeting will be held at 10:00 hrs on Tuesday 19<sup>th</sup> January 2011 at INM.

Distribution: All present+

[REDACTED] - MoD TEST Team

[REDACTED] - MoD SSD&C

[REDACTED] - MoD DE

[REDACTED] - MoD DE

[REDACTED] Delivery Manager TEST

[REDACTED] File ESK/327/00

[REDACTED]  
20<sup>th</sup> Dec 2010

## **Summary of Outstanding Actions**

**Action 52.2** – [redacted] to bring a draft standing order to the next meeting.  
This document is still being worked on.

Action on-going.

Jan 2011

**Action 54.4** [redacted] to set up the occasional contract for an RPA for KTA.  
[redacted] not present at meeting  
Jan 2011

Action ongoing

**Action 55.4** [redacted] to circulate his suggestions regarding the amendments to the DUFERC  
Action Ongoing

Jan 2011

**Action 55.5** [redacted] to amend the DU firing presentation to reflect the DUFERC input and return it to [redacted]  
[redacted] Awaiting [redacted] amendments  
Jan 2011

Action Ongoing

**Action 55.6** [redacted] to discuss the proposed (Eskmeals) sampling with [redacted] RPA for Eskmeals)  
[redacted] to discuss with [redacted]  
Jan 2011

Action ongoing

**Action 56.1** [redacted] awaiting outcome of DE business case-review when received  
Jan 2011

New Action

**Action 56.2** [redacted] to draft a letter concerning the importance of the LLWR inventory to the RPPDC to ensure that the TEST input is not overlooked.  
Jan 2011

New Action

**Action 56.3** [redacted] to invite the new TEST Ops Delivery Manager [redacted] to the next DUFERC meeting.

New Action

Dec2001

**Action 56.4** [redacted] write to [redacted] identifying the issues relating to the LLW steel from VJ  
Jan 2011

New Action

**Action 56.5** [redacted] to speak to [redacted] about the viability of phytoremediation of the DU contamination of the land surrounding VJ battery.

New Action

Oct 2010