

NATIONAL DOSE ASSESSMENT WORKING GROUP

PAPER 3-02: SUB-GROUP ON RETROSPECTIVE DOSE-RECORD OF SECOND MEETING

2nd Meeting held on 13th May 2003, Aviation House, London.

1. Present

Chair	Rob Allott	EA
Regulators/agencies	Adam Stackhouse	SEPA
	Paul Tossell	FSA
	Jane Simmonds	NRPB
Specialists/NGOs	John Hunt	CEFAS
Secretariat	Ciara Walsh	NRPB

Apologies: Tim Parker, BNFL

2. Minutes of last meeting and actions

The minutes of the last meeting were agreed.

Action RD_Subgroup 1.1 Tim to draft new terms of reference for comment by the subgroup before 21st November 2002. **Complete** – this was discussed under the next agenda item

Action RD_Subgroup 1.2 Rob to mention the industries view on collaboration between the regulators at the main NDAWG meeting while reporting on the progress from the subgroup. **Complete**

Action RD_Subgroup 1.3 Rob to ask NDAWG to issue a recommendation on whether the dose limit applies to the maximum exposed individual or to representative members of the critical group. **Complete**

Action RD_Subgroup 1.4 Stephanie to investigate whether software to calculate total dose using GIS is practicable and to consider the total cost of development. **Complete**- a note on this was discussed as a later agenda item

Action RD_Subgroup 1.5 Rob to draft outline of principles document for circulation to other members of the subgroup. **Complete**- the draft principles were discussed as a later agenda item

Action RD_Subgroup 1.6 EA, CEFAS and FSA to collaborate to provide Rob with any available integrated habit data and/or monitoring data for Teeside, Aldermaston and Cardiff areas for use in a future trial. **Not completed**. Due to

time constraints it has not been possible to carry out future trials although the FSA has passed all data to the EA.

3. Terms of reference

It was decided at the last meeting that the terms of reference were focussed on the needs of the EA, and that it may be more useful to change the terms of reference to give a wider perspective to the sub-group. Rob and Tim proposed alternative terms of reference in advance of this meeting and these were discussed. It was agreed that a combination of the two versions was required.

Rob will circulate new terms of reference for agreement.

Action RD_Subgroup 2.1 Rob to circulate new terms of reference for agreement by the sub group

4. Paper on Principles for Total Retrospective Dose Assessment

A draft of "Principles for the assessment of total retrospective public doses" had been circulated prior to the meeting and this document was discussed. It is planned that these principles will be presented at the autumn meeting of NDAWG.

A summary of the main decisions is given below:

- The scope of the paper will include technologically enhanced naturally occurring radioactivity and non-UK discharges.
- Collective dose issues may need to be considered. Jane to provide Rob with a paragraph of text to be included in the next draft of the document.

Action RD_Subgroup 2.2 Jane to provide Rob with a paragraph of text on collective doses to be included in the next draft of the retrospective principles document

- Principle 2 will be removed and the text on which dose limit should be used (i.e. public or worker) for sewage workers and farmers will be revised. It is not clear from the IRR or ACoP and clarification will be sought from HSE/NII on this issue.

Action RD_Subgroup 2.3 Rob to ask Patrick Steven to comment on the next draft of the retrospective principles document

- The NRPB document on fetus doses will be referenced when the advice has been formalised.
- The terms 'proportionality' and 'proportionate' are used in the document and need clarification.

- A reference to the prospective principles document will be included to justify the use of 20 $\mu\text{Sv}/\text{y}$ as a threshold. The statement regarding the significance of monitoring results based on 10% of the total dose will be clarified.
- Discussion about principle 7 (selection of critical groups) prompted discussion about the use of the new integrated habit data and issues of homogeneity in habits and dose. It was noted that this is a topic which spans both current NDAWG subgroups (this subgroup and the probabilistic modelling subgroup) and also a topic which is being reviewed by ICRP. Jane will speak to John Cooper who sits on an ICRP Committee 4 working group on critical groups about the current discussions regarding critical groups.

Action RD_Subgroup 2.4 Jane to speak to John Cooper who sits on ICRP Committee 4 about the current discussions regarding critical groups

- Principle 7 also prompted discussion about the use of the 97.5th percentile for selection of the critical group. This issue will be discussed in the next draft of the document.
- The assumptions about local food production used in dose assessments need to be reviewed.
- There is no discussion of uncertainty in the document so Jane agreed to write a paragraph for the next draft.

Action RD_Subgroup 2.5 Jane to provide Rob with a paragraph of text on uncertainties to be included in the next draft of the retrospective principles document

It was agreed that the document would be published as an NDAWG report once approved.

5. RIFE total dose methodology

Bill Camplin is leading on developing the RIFE total dose methodology. Rob noted that it would be useful to develop the methodology through a project that ran alongside the current RIFE project. The methodology would be circulated to NDAWG for comment and a staged approach may be adopted. It would pragmatically concentrate on nuclear sites but would need to provide reassurance that non-nuclear sites were not contributing to a large total dose. The other trials discussed at the last meeting (e.g. Teeside, Aldermaston and Cardiff areas) might be considered as part of the development of the methodology for RIFE or as separate R&D projects.

6. GIS-based total dose assessment tool

In response to action 1.4 at the last meeting, a proposal for a GIS-based total dose assessment tool from NRPB was circulated on this topic prior to the

meeting. This proposal demonstrated that while a tool could be developed, the cost of the tool would exceed £100,000. This cost is not viable at the moment.

7. Environment Agency screening method

The EA are developing a screening method using spreadsheets for use by site inspectors. This will be circulated to the subgroup for comment.

8. AOB

Jane noted that the FSA are ceasing monitoring around industrial sites and queried whether another body should continue this. Paul commented that was due to the fact that sampling had been completed around all the sites that produced significant dose estimates. Rob noted that this would not be a priority for EA funding.

9. Date of next meeting

The next meeting is scheduled for the 7th October 2003 in the EA offices in Warrington. However, this meeting will only be held if required. The group agreed that the outstanding work can be completed by correspondence (retrospective dose principles document and EA screening method). Other work cannot be started until the total dose methodology is written and it was agreed this subgroup could be suspended until that work is ready to begin.

The discussion about critical group habits and 97.5th percentile indicates the need for an NDAWG subgroup to review critical group composition and habits (including assumptions about local food production).

Action RD_Subgroup 2.6 Rob to seek NDAWG's advice as to which subgroup should consider the methodology for defining critical group habits, or is a further subgroup required.

10. Summary of Actions

Action RD_Subgroup 2.1 Rob to circulate new terms of reference for agreement by the sub group

Action RD_Subgroup 2.2 Jane to provide Rob with a paragraph of text on collective doses to be included in the next draft of the retrospective principles document

Action RD_Subgroup 2.3 Rob to ask Patrick Stevens to comment on the next draft of the retrospective principles document

Action RD_Subgroup 2.4 Jane to speak to John Cooper who sits on ICRP Committee 4 about the current discussions regarding critical groups

Action RD_Subgroup 2.5 Jane to provide Rob with a paragraph of text on uncertainties to be included in the next draft of the retrospective principles document

Action RD_Subgroup 2.6 Rob to seek NDAWG's advice as to which subgroup should consider the methodology for defining critical group habits, or is a further subgroup required.

Ciara Walsh 14th May 2003