

## NATIONAL DOSE ASSESSMENT WORKING GROUP

### PAPER 3-01: SUMMARY OF AGREEMENTS AND ACTIONS FROM 2<sup>ND</sup> MEETING

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2<sup>nd</sup> Meeting held on 21<sup>st</sup> November 2002, Aviation House London.

#### 1. Present

Chair	John Cooper	NRPB
Regulators/agencies	Rob Allott, John Titley	EA
	David Webb Wood, Zitouni Ould-Dada	FSA
	Andrew Macpherson	DEFRA
	Cathy Griffiths	RWMAC
Industry	Ken Ledgerwood	Dept Environment (NI)
	Tim Parker	BNFL
	Laurence Austin	BNFL Magnox
	Michael Gaunt	Rolls-Royce
Specialists/NGOs	Paul Marks	Amersham plc
	Steve Jones	Westlakes Scientific Consulting
	John Hunt	CEFAS
	Mike Thorne	Mike Thorne and associates
	Philip Day	University of Manchester
	Jeff Stacey	Local Authorities rep
Secretariat	Jane Simmonds	NRPB
	Ciara Walsh	NRPB

#### Apologies:

Ian Hall, Scottish Executive  
George Hunter, SEPA (in place of Julie Tooley)  
Barrie Lambert, Consultant  
Nancy Lawton, DTI  
Pete Roche, Greenpeace  
Patrick Stephen, NII

#### 2. Actions from first meeting and matters arising (Paper 2-01)

All the previous actions have been completed.

Pete Roche has decided to join NDAWG, although he was unable to attend the second meeting.

Jeff Stacey will represent the local authorities on NDAWG

Ian Hall will represent the Scottish Executive on NDAWG

Barrie Lambert and Tim Parker have joined the steering group as representatives of NGOs and Industry.

Other matters arising from the minutes of the 1<sup>st</sup> meeting were addressed under later agenda items.

Rob Allott reported back to the group on the progress of the 'Principles' document (EA document on the principles for the assessment of public doses for the purposes of authorisation purposes). Due to comments raised at the 1<sup>st</sup> NDAWG meeting, there were small changes to the document. It was then distributed to government departments and devolved administrations for final comments and then approval sought from EA, SEPA and NIDoE. Once approval has been received from these organisations, approval will be sought from NRPB prior to publication on the web.

As Patrick Stephen was unable to attend this meeting, the paper on direct radiation doses from sites (Paper 2-04) was deferred to the next meeting.

### **3. Report back from sub group on retrospective assessments (Paper 2-02).**

Rob Allott chairs this subgroup and he reported back from the first meeting of this subgroup. A record note from this meeting had been distributed prior to the meeting (paper 2-02). Issues which arose from Rob's summary of the meeting:

Dose limit of 1mSv- does this apply to an individual or to the mean of the critical group? Everyone present agreed that the dose limit applies to the mean of the critical group.

Screening method proposed in EA R&D report- Rob reported that due to issues raised by the sub group he was looking at two alternative methods of assessing total dose. One of these uses an alternative screening method to that proposed in the R&D report, while the other is based on a GIS system, considering all discharges.

The future work of the subgroup was discussed and it was agreed that another couple of meetings was required to complete the work programme. The conclusions of the subgroup would be discussed at the 4<sup>th</sup> or 5<sup>th</sup> NDAWG meeting

### **4. Report back from sub group on probabilistic modelling and related issues (Paper 2-03).**

Zitouni Ould-Dada chairs this subgroup and he reported back from the first meeting of this subgroup. A record note from this meeting had been distributed

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prior to the meeting (paper 2-03). Issues which arose from Zitouni's summary of the meeting:

Other links for the subgroup to consider were suggested:

BIOPROTA

Nord Cotentin Uncertainty Study

Studies in the US- John Till is the contact name.

The definition of the critical group (e.g. 97.5<sup>th</sup> percentile) is an issue which may arise in both subgroups. It was decided that because the sub groups have some common membership, it is not necessary for both groups to come together to discuss this issue.

The work programme proposed by the subgroup was discussed and agreed (See paper 2-02)

### **5. The use of ICRP fetal dose coefficients (Paper 2-05)**

Jane Simmonds presented a summary of a draft paper from NRPB. This paper is a pre-consultation draft that had been circulated to members prior to the meeting. Issues which arose from Jane's summary of the paper:

It would be difficult to use site specific habit data. The age-weighted dose coefficient would use national statistics while the ingestion rates and other habit data would require site specific data.

The method of using the age-weighted dose seems less transparent, and would present presentational difficulties. CEDA recommended greater transparency. It would make it harder for individuals to assess their own exposure.

There was a lot of support for the dose to the fetus to be reported explicitly. Many felt that even if the age-weighted dose were presented, it would still be necessary to present the doses for all age groups.

There is a growing population over a lifetime and the method presented only applies if the population is in equilibrium.

This would present problems when ensuring the 1mSv dose limit is not exceeded.

This raises issues about whether the critical group will always include a pregnant woman.

Issues of homogeneity were raised.

The paper dismisses intakes prior to conception and is that justified? Jane explained that ICRP 88 considered intakes prior to conception. The group asked that more explanation be included in the NRPB document.

The exposure period of the fetus was queried- whether it was 9 months or 1 year. The group asked that more explanation be included in the NRPB document.

It was agreed that further clarity is required in the document. It was noted by NRPB that further comments in writing are welcome within two weeks of the meeting.

## **6. Progress with website**

The address of a draft version of the NDAWG website had been circulated prior to the meeting ([http://www.nrpb.org/review/ndawg\\_website](http://www.nrpb.org/review/ndawg_website)). It was agreed to add a page which gives links to documents of use for radiological assessments. The group agreed the website was ready for publication, and will therefore be moved to the address [www.ndawg.org](http://www.ndawg.org) in the near future. Once it has been published at that location, it will be made accessible to search engines and be publicised on the SRP discussion group (**ACTION 2.1 Secretariat**)

## **7. Report back from members**

### *7.1 Presentation of information to the public*

Zitouni Ould-Dada briefed the meeting on a project being funded by FSA and being carried out by NRPB and Greenstreet Berman as a response to a CEDA recommendation. This is a pilot project to identify feasible options for enabling members of the public to get an individual dose assessment and will be carried out around the Harwell site using focus groups. This project will finish in April 2003.

There was concern in the group that this may generate concern among the members of the public, however it was explained that this should be alleviated through adequate follow up at the focus groups. The focus groups will also enable us to assess whether the public wants individual dose assessments.

The group were interested in the outcome of this project and Zitouni was asked to report back on this project at the next meeting.

### *7.2 Short term releases*

Laurence Austin reported that in the authorisations for Magnox stations weekly limits were being replaced by weekly advisory limits that allowed more flexibility.

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John Titley reported that the EA have funded a study to look at short term releases to rivers which considers the time integrated activity concentrations in the river.

### *7.3 Recent publications*

Jane Simmonds reported that a report co-authored by NRPB on guidance on the assessment of radiation doses to members of the public due to the operation of nuclear installations under normal conditions was available on the EC website:

<http://europa.eu.int/comm/environment/radprot/guidanceonassessment.pdf>

and a summary document by Article 31 group of that report is also available:

[http://europa.eu.int/comm/environment/radprot/129/radiation\\_protection129.pdf](http://europa.eu.int/comm/environment/radprot/129/radiation_protection129.pdf)

Jane also reported that the reports from MARINA II were available. This is an update of the MARINA Project on the radiological exposure of the European Community from radioactivity in North European marine waters:

<http://europa.eu.int/comm/environment/radprot/#studies>

Tim Parker enquired about the EA publication on unusual pathways. It was agreed that this would be discussed at the next meeting.

## **8. Liaison with other groups**

Liaison with some other groups has been established through common membership e.g. RWMAC and CERRIE. Andrew Macpherson reported that members of CERRIE did not think there was enough NGO representation on NDAWG. A draft report from CERRIE will be published during the Summer of 2003, followed by a conference. Input from the conference will be used for input for the final report and parties interested in attending the workshop should inform CERRIE. It was decided that the NDAWG secretariat should establish links with the CERRIE secretariat (**ACTION 2.2 Secretariat**)

Mike Thorne briefed the group on the activities of the IUR (International Union of Radioecologists). IUR is setting up a working group on radioactive waste (mainly solid waste) and Mike was asked to keep this group informed of IUR activities.

## 9. NDAWG review

### 9.1 Size of NDAWG

There have been several requests to join NDAWG from individuals and the size of the group was discussed. It was agreed that the group should not get any bigger than it is at present. There is good representation at present, and individuals seeking to join NDAWG will be directed to their representative.

### 9.2 Terms of reference

Prior to this meeting Barrie Lambert proposed a change to the terms of reference:

**Original wording:** "To facilitate the exchange of data and views between all parties on assessment methodologies"

**Proposed change:** "To facilitate the development of a unified, transparent method for the assessment of radiation dose to the public from all pathways which arise as a result of the operations at nuclear and non-nuclear sites."

It was agreed that the original term of reference was not strong enough, but was a valid term of reference. It was agreed that an additional term of reference be added, but many members objected to the term 'unified' in the proposed change.

Barrie Lambert was unable to attend this meeting, and therefore this will be discussed at the next NDAWG meeting. The secretariat will propose an additional term of reference (**ACTION 2.3 Secretariat**).

### 9.3 Future Work Programme (Paper 2-06)

Following the last NDAWG meeting, the steering group proposed a future work programme to be voted on by the membership. It was decided that a structured plan would be of benefit to the group.

Paper 2-06 was distributed prior to the meeting and illustrated the members preferences and proposed a structured work plan. It was noted that issues arose at this meeting which altered the work plan and the steering group were asked to review the work plan to ensure that the proposed work plan follows a logical flow (**Action 2.4 Steering Group**).

### 9.4 Topics for next meeting

The following topics will be discussed at the next NDAWG meeting:

- Progress from the sub group on retrospective assessments
- Progress from the sub group on probabilistic modelling (FSA possible and probable dose)

- Direct radiation doses from site
- FSA project on presentation of doses to the public
- Unusual pathways

## 10. Date of next meeting

The next meeting will take place in May/ June 2003 (Date to be decided) at FSA, Aviation House, London. It was decided that the meeting should begin at 10:30 to allow more time for discussions.

## 11. Review against objectives

At the 1<sup>st</sup> NDAWG meeting it was decided that there should be a review of the groups progress at every meeting. The terms of reference were used to monitor performance.

*To facilitate the exchange of data and views between all parties on assessment methodologies.* This is being achieved through the NDAWG meetings and the work of the subgroups.

*To advance the understanding between groups who are likely to have differing objectives and views on dose assessment methods.* This is being achieved through the NDAWG meetings and the work of the subgroups. It was felt by some members that this implies a commitment to publish. Reports will be published when more work has been completed.

*To meet on a regular basis (every 6 months) to discuss matters of mutual concern, and developments arising out of research, case histories (eg, recent consultations) or changes in government policy.* This is being achieved through the NDAWG meetings and the work of the subgroups. It was agreed by the members that NDAWG should not be on the consultees list for discharge authorisations etc. due to conflicts of interests.

*To identify and co-ordinate research which will progress dose assessment methods.* This is being achieved through the NDAWG meetings and the work of the subgroups. Though the future meetings the group will aim to establish what relevant research is ongoing and synthesise the research findings. However it was decided to replace the word 'co-ordinate' with 'discuss and evaluate'.  
**(Action 2.5 Secretariat)**

The method for collating ongoing research will be discussed at the next steering group meeting **(Action 2.6 Steering group)**

*To initiate debate beyond the group on key issues, as necessary (for example via the Society for Radiological Protection).* This has begun through the work of the probabilistic modelling subgroup.

*To keep abreast of international developments on dose assessment methodologies, and to provide feedback to the appropriate UK authorities for input into EU bodies.* This is being achieved through the NDAWG meetings and the work of the subgroups e.g. the discussion on the NRPB draft fetal dose document.

## **12. Summary of Actions**

Action 2.1 Secretariat to publish the NDAWG site on [www.ndawg.org](http://www.ndawg.org) and publicise the site

Action 2.2 NDAWG secretariat to establish links with the CERRIE secretariat

Action 2.3 Secretariat to propose an additional term of reference

Action 2.4 Steering group to review the work plan to ensure that the proposed work plan follows a logical flow

Action 2.5 Secretariat to replace the word 'co-ordinate' with 'discuss and evaluate' in the 4<sup>th</sup> term of reference.

Action 2.6 Steering group to consider a method for collating ongoing research

NDAWG Secretariat 27 November 2002