INTERDEPARTMENTAL GROUP ON HEALTH RISK FROM CHEMICALS

STEERING COMMITTEE
Tenth Meeting

AGREED MINUTES

Minutes of the meeting held on 12 January 2007 at DEFRA, Ashdown House, 123 Victoria Street, London, SW1E 6DE, commencing at 10.30am

Present:	Dr Diane Benford	FSA
	Mr Andrew Browning	VMD
	Mr Peter Buckley	Home Office
	Dr Ian Dewhurst	PSD
	Dr Simon Dyer	DH
	Dr Steve Fairhurst	HSE
	Dr Robin Fielder	HPA
	Prof Michael Moore	NERC
	Mr Poul Petersen	DEFRA
	Prof Iain Purchase	University of Manchester
	Mr Henry Stemplewski	MHRA
	Mr Lenroy Wallace	DTI
	Dr Ailsa Wight (Chair)	DH
	Prof Len Levy (Secretariat)	IEH
	Ms Kathryn James (Secretariat)	IEH
	Dr Jeff Newman (Secretariat)	IEH
Apologies:	Ms Cressida Beeching	BBSRC
	Ms Alison Gowers	EA
	Ms Albania Grosso	EA
	Dr David Harper	DH
	Mr Nick Tomlinson	FSA
	Dr Heike Weber	MRC

Action

1. Welcome

1.1 The Chair welcomed all members to the 10th meeting of the IGHRC Steering Committee, including Dr Diane Benford who deputised for Mr Tomlinson. Dr Ailsa Wight acted as Chair in Dr Harper's absence as he had been called away on priority business.

The Chair introduced herself and welcomed Dr Jeff Newman, who will be taking over from Kathryn James in February.

2. Minutes from the Previous Meeting and Matters Arising (IGHRC/SC/min/01/06)

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2.1 The minutes were accepted by the Committee as a true reflection of the meeting.

2.2 There were no matters arising.

3. Secretary's Report (IGHRC/SC/01/06)

3.1 Ms James updated the Steering Committee on the actions from the last Steering Committee meeting in January 2006.

Action 4.2 'EC to approve the draft Chemical Mixtures guidance document at the EC meeting in Feb 2006' is ongoing. The draft prepared by the external consultant Dr Fletcher was found to be inappropriate in Feb 2006. However, Ms Elanor Ball (HSE) kindly volunteered to work on the draft document and a final draft will be ready for Executive Committee (EC) review in Feb 2007.

3.2 Action 4.7: The draft COT report on toxicology and variability for relevance to toxicodynamic research was due to be published in early 2007. Dr Benford confirmed that publication is due in February 2007.

3.3 Action 6.1 'Members to consider possible repeat of the Presenting and publishing transparent risk assessments and Understanding chemical exposure assessment' and Action 6.2 are pending. Neither course has been repeated so far but the Secretariat is looking to rerun one or both before the end of Phase 2.

Secretariat to repeat Presenting and publishing transparent risk assessments and Understanding chemical exposure assessment courses in 2007

3.4 Action 9.5 'Secretariat to incorporate evaluation into the final summary report of Phase 2' is pending. Phase 2 was extended by one year to Sept 2007 so the final summary report and evaluation will be produced in 2007.

Secretariat to publish Final Report for Phase 2

3.5 Action 10.1: It was agreed that there is no perceived current role for IGHRC regarding REACH activities. Dr Steve Fairhurst commented that the HSE is the Competent Authority for the UK implementation of REACH, which comes into force on 1st June 2007 and that future IGHRC involvement would be borne in mind.

4. Report update from Professor Iain Purchase on the activities and work programme of the IGHRC

4.1 Prof Purchase commented that there appeared to be a slowing down of activity which is possibly related to Departments / Agencies not being able to commit as much human resource to these activities as they would otherwise like.

SC Members to make staff /resourcing available to encourage commitment to the current and future IGHRC work programme

4.2 The Guidance Document, *Route-to-Route Extrapolation of Toxicity Data* was cited as a good example of the work of IGHRC. Thanks were

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acknowledged to Dr Robin Fielder and Dr Philippa Edwards for their work on this document.

4.3 The *Chemical Mixtures – A Framework for Assessing Risks* Guidance Document has been delayed. One reason for this is because the draft prepared by the freelance scientific writer, Dr Fletcher, was too academic with not enough practical application. It was agreed that a Government scientist working within the field of chemical risk assessment rather than an outsourced consultant, would have been a preferable choice for drafting the document but the resources within the EC could not permit that at the time. Fortunately, Elanor Ball (HSE) has since kindly volunteered to take over this project and the EC have already noted a vast improvement. Ms Ball will complete a final draft of the document ready for review by the EC in February 2007.

Dr Benford highlighted that since the WIGRAMP report on pesticides, the COT have broadened their activities/conclusions to encompass other chemicals. Dr Fairhurst agreed to check that Elanor Ball is aware of the COT's activities/conclusions on their previous work.

Finally, it was suggested that the Document is reviewed by a single pass through the following Expert Committees: VPC, COT, COM, COC, COMEAP, WATCH, and ACP, prior to final sign off by the SC and publication.

Dr Fairhurst to check with Elanor Ball that she is aware of the COT/COC and COM recommendations on chemical mixtures by end Jan 2007.

Secretariat to oversee Expert Committee review process and publication of the Chemical Mixtures document

4.4 The Guidance Document *Current Approaches to Exposure Modelling in the UK*, was discussed. Ms Albania Grosso and Ms Alison Gowers from the EA have taken the lead for IGHRC on this guidance document. All the chapters from the contributing Departments/Agencies were received by November 2006 and a final draft document is currently being pulled together by Albania Grosso for review at the February 2007 EC meeting. It was agreed that this document will not need Expert Committee review. It has been proposed that the Steering Committee Chair signs this off electronically, on behalf of the Committee.

Secretariat to oversee publication of the Exposure Modelling document and SC Chair to sign-off final document

4.5 The Awareness Day: *Chemical Risk Assessments on Health Effects Currently Undertaken by UK Government* took place in York on 16 March 2006, coordinated by Dr Ian Dewhurst, PSD, and the Secretariat. Prof Purchase reported the good feedback ratings and stressed the usefulness of the day.

4.6 A training course, *Understanding Epidemiology for Chemical Risk Assessment*, was held at the Wolfson Conference Centre from 13-15 November 2006, coordinated by Lesley Rushton (Imperial College) and the Secretariat. Almost all feedback was "excellent" or "very good". Mr Peterson, Dr Fielder and Dr Benford all commended the course and agreed that it met an important need. Prof Levy reported that Dr Lesley Rushton hopes to repeat the course next year, but possibly as an Imperial College 'for-profit' course. Mr Wallace suggested a possible shorter version to be targeted more at policy-makers. Dr Fielder said that the course was particularly useful for toxicologists who do not have an epidemiology background and that there is probably demand for longer (one week or more) courses on epidemiology from toxicologists. Dr Wight and Prof Purchase added that the reverse may also be useful – *'Understanding Toxicology for Epidemiologists'* but it was agreed that the IGHRC

Secretariat to talk to Lesley Rushton about repeating the epidemiology course with IGHRC.

Secretariat to explore 1-week self-funding epidemiology courses for toxicologists or shorter 1-day versions for policy-makers

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Understanding Chemical Risk assessments course covers the use and interpretation of toxicological data in this field.

4.7 A brainstorming meeting for Phase 3 of the IGHRC activity was held on 29 June 2006 and a draft document produced by the EC for discussion by the SC. This document was extensively discussed by the SC – see item 5.

4.8 The SC agreed that there continues to be an abundance of activity on nanotechnology and that no specific input from IGHRC is required, although the continuation of a watching brief would be useful.

Members to keep a watching brief in nanotechnology

4.9 Activity levels during Phase II indicate that the availability of time/resources from the EC members is the rate limiting factor to the effectiveness and timeliness of IGHRC outputs. Prof Purchase stressed the importance for SC Members to free time for EC Members to fully engage in IGHRC activities.

See Action 4.1

5. The Future of IGHRC and Phase 3 Programme of Work

5.1 Prof Levy introduced this item and drew the Committee's attention to the brainstorming document (Annex 1), which grouped ideas for future IGHRC activities into the three primary areas comprising risk assessment: hazard characterisation, exposure assessment and risk characterisation. The document also has the EC's recommendations and priority ranking (high, low, pending, unsure, no). Prof Levy also drew the SC's attention to the EC's cover note on page 6 of the paper.

Prof Purchase stated that issues relating to a fourth area discussed, risk management is outside the competence of IGHRC. However, it was agreed that a mapping document would be a useful interdepartmental aid and also useful for a wider audience to access via the IGHRC website.

The following three areas were identified by Prof Purchase as key drivers for IGHRC documents:

- To address political concerns and/or public perception; for example, are vulnerable groups such as the young and old adequately protected?
- To address advances in science; for example, the increasing use and sophistication of probabilistic modelling in chemical risk assessment.
- Where clarification and/or justification for different approaches to risk assessment is required.

It was agreed that in order for a Phase 3 to have value and longevity, there should be identification of the tangible benefits and value for all the Departments and Agencies involved with IGHRC. Committee Members who are contributing their time to these activities should be able to see both the benefits from putting the work in, when it often falls on already overloaded schedules, and the positive impact of the activity's output.

Prof Levy then led a discussion of the areas of work which had been ranked as 'high' or 'unsure' by the EC and the SC were invited to comment and agree on a future programme of work. See 5.2 to 5.12 below.

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5.2 Hazard Assessment – Guidance Document on how to Address Susceptible/ Vulnerable Groups During Hazard Assessment

This activity had been recommended as 'pending but potentially high' by the EC. Mr Stemplewski commented that within his field of medicines, until 2000 no special consideration was given to deriving safe doses of medicines in children despite their physiological and biochemical differences to adults. The US Food and Drug Administration (FDA) are now using juvenile animals to test medicines so there is potentially a lot of data within this field. Although this is changing in the US, it is still rarely done in the UK.

IGHRC Members to await the outcome of the CEHAPE work and COT report on variability and uncertainty

Dr Benford added that the draft COT report on variability and uncertainty concluded that there is no basis for assuming that children are always more susceptible and that risk assessments should be done on a case-by-case basis. Medicines would form a specific case.

Secretariat to ask IGHRC Members which susceptible groups are of particular interest and determine what guidance already exists

Dr Fairhurst stressed that although this is a good idea, it needs more focus, and the output of any work done may depend on what IGHRC wants to achieve and the target audience. For example, one angle might be to identify research needs in this field to understand the issue more clearly; or produce a guidance document to tell people within the risk assessment field how to approach susceptible groups; or to have a UK position document to point to when answering challenging questions from lobby groups.

Dr Fielder recognised that it would be difficult to cover all susceptible groups within one guidance document and ensure it is a 'useful' document and felt that all life stages are already covered within the ADI/TDI considerations. Drs Dewhurst and Fairhurst suggested that IGHRC first identify what susceptible groups are of interest to the various Departments and Agencies and then find out what documents are already available to avoid duplication of work.

It was agreed that IGHRC should await the outcome of the CEHAPE work and COT report on variability and uncertainty to assess whether IGHRC should take this further but that in the meantime the Secretariat could approach each department to see which susceptible groups are of particular interest and explore whether any guidance on addressing them in the risk assessment process already exists.

5.3 Hazard Assessment – Guidance on the Use of Predictive Approaches where there is an Absence of Data or Animal Welfare Issues

This activity had been prioritised as 'high' by the EC. Prof Levy noted that the use of read-across for toxicological data for closely related chemicals is currently accepted and used within the OECD/IPCC programme. Dr Dewhurst noted that there is some coordinated activity in the UK already (UK-QSAR group) and Dr Benford said that the COT will shortly be receiving a paper on the use of predictive approaches from the HSE and that the recommendations from this report should be brought to the attention of the EC. It was agreed that it is unlikely that REACH will be able to provide specific guidance on this in the immediate future so there is scope for IGHRC activity in this area, particularly if specific

FSA EC Member to bring forward recommendations from HSE's paper for COT.

Secretariat to add this activity to the Phase 3 work programme

Action

examples are identified such as predictive reproductive toxicology, for which no current cross-Government consensus exists. Prof Purchase cautioned against moving too broadly since this should be a specific regulatory issue. Dr Fielder agreed and suggested that the current OECD SIDS dossier approach should be used as a basis for guidance since the programme is a voluntary scheme, accepted by all Member States and is most experienced in the use of read-across. The SC agreed with this approach and made it a high priority area for IGHRC to take forward into Phase 3 as a guidance document.

5.4 Hazard Assessment – Guidance Document on the Use of *In Vitro* data to predict skin adsorption and Best Practice for Conducting these Studies and Interpreting Findings
and

This activity had been prioritised as 'high' by the EC. Dr Dewhurst commented that there is a very important working group within the OECD looking at pesticides specifically. But that the OECD could move into other chemicals later on. The SC agreed that clear guidance on this was required and that the VMD, HSE and PSD would have the most interest. It was decided that this should be combined with the activity described under the exposure assessment section of the brainstorming document 'Guidance on exposure via the skin'. The SC agreed that a guidance document covering both these areas should be included in a Phase 3 work programme.

Secretariat to combine this activity with the guidance document on exposure assessment via the skin and add to the Phase 3 work programme

5.5 Exposure Assessment – Mapping Default Values Used in Exposure Assessment

This activity had been prioritised as 'high' by the EC. It was noted that exposure assessment capability across the UK is currently thin and that a mapping document for the default values used would help to increase transparency for the basis on which exposure assessments are made. Dr Newman stressed the importance of using limits that are measurable in the field. Mr Wallace informed the Committee of an International initiative called CHEMRISK (http://www.chemrisk.com/), which involves the HSE's hygienists. Dr Benford pointed to the IPCS's (WHO) default values booklet, which the Food Standards Agency use and which is generally accepted within the UK and internationally.

All Members and Secretariat to seek further information on current approaches and initiatives for default factors used in exposure assessment

As a consequence of these discussions, the SC agreed that further information on other initiatives should be gathered before pursuing this task further.

5.6 Exposure Assessment - Need for Guidance for Exposure *via* the Skin

This activity had been prioritised as 'unsure' by the EC and they had noted that a document that collates the different approaches used by different departments may be more useful that a 'how to' guidance document. However, Mr Andy Browning thought that a collation document would not benefit anyone and that actual guidance is needed.

See action 5.4

Mr Stemplewski stressed that as well as guidance on exposure via the skin, guidance on the role of the skin in extra-hepatic metabolism would be

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important, for example the skin has been shown to cause bioactivation of carcinogens.

It was agreed that exposure of nanomaterials on skin is being done in the UK already. Prof Moore added that cosmetics have been shown to inhibit multi-drug resistance genes in wildlife although no human health effects have emerged yet. Dr Fielder added that the European cosmetic toiletry and perfumery association (COLIPA) models worst-case scenarios for exposures to cosmetics.

Mr Browning contributed that VMD assessors use different often contradictory approaches to dermal exposure assessment and stressed the need for a common approach. Dr Fairhurst suggested this would be difficult due to different modelling approaches but overall it was agreed that there is a need to assess which models are best and indicate their limitations.

The SC agreed that the *in vitro* skin absorption work under hazard assessment and guidance for exposure assessment via the skin could be combined into one activity.

5.7 Exposure Assessment – Guidance on the Use of Human Volunteer Data, Industrial 'Uses' Data and Deliberate Exposure Data in Exposure Assessments.

This activity had been prioritised as 'unsure' by the EC. It was noted that in some countries human volunteer studies are seen as more unethical e.g. in Austria they are not permitted to test chemicals other than medicines. The SC agreed not to pursue this proposed activity further.

5.8 Exposure Assessment – Training on Probabilistic Exposure Monitoring and its Future Role in Exposure Assessments

This activity had been prioritised as 'high' by the EC. It was generally agreed that the course should be re-run. Dr Dewhurst also agreed this was a high priority and added that other groups may be doing similar things, for example, the Rikilt Institute of Food Safety (http://www.rikilt.wur.nl/UK/) in the Netherlands offer probabilistic modelling courses. He agreed to provide further details to the Secretariat. Prof Purchase supported the idea of using other Institutes for training, since resource requirements would be lower.

Ian Dewhurst to supply details of courses on probabilistic modelling to the Secretariat.

The SC agreed that this activity should form part of Phase 3's programme of work.

Secretariat to include this training course activity in a Forward plan for Phase 3

5.9 Exposure Assessment – Guidance or Training on the Use of Poor, Old, or Absent data in Exposure Assessments

This activity had been prioritised as 'unsure' by the EC and the SC agreed that this activity should not be taken forward to Phase 3.

5.10 Risk assessment – Workshop on the use of Probabilistic Approaches in Risk assessment, including Information on Sensitivity analysis

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The EC prioritised this activity as 'high after Feb 2007', when the COT's report on Variability and Uncertainty is due for publication'. Dr Benford confirmed that a COT workshop has been arranged for February 7th which will discuss probabilistic exposure modelling, probabilistic hazard characterisation, risk assessment modelling, sensitivity analyses, benchmark dose modelling and combining human and animal data. She encouraged people to attend although there may be limited places left. There is no plan to publish a specific report from the Workshop but the outcomes will be fed back to the EC via the FSA's EC Member.

Members to attend /publicise COT workshop on probabilistic techniques if possible.

FSA's EC Member to feed back outcome of the workshop to the rest of the EC at the February 2007 EC meeting.

The SC agreed that the EC should await the outcome of the COT Workshop before committing this activity to the Phase 3 work programme.

5.11 Risk assessment – Guidance on Descriptive Versus Quantitative Risk Assessments and Re-Run IGHRC Course on Increasing Transparency in Risk Assessment
Also: Guidance on how Uncertainties should be Described or Quantified in Risk Assessments

This activity had been prioritised as 'high' by the EC. The Committee noted the similarity between the two activities and agreed that combining them into one activity was the best way to proceed. It was suggested that a 1-day Workshop is held first and then a document could use the Workshop's outcomes/
recommendations as a basis to provide more 'permanent' guidance.
It was also suggested that the document should include expertise on risk communication so Dr Wight suggested making contact with Peter Bennett's (DH) analysts group to invite their involvement with this.

Dr Wight/Dr Dyer to investigate involvement of Peter Bennett's group in this activity

Secretariat to include this Workshop and Guidance document activity in a Phase 3 Forward Plan

The SC agreed that this activity should form part of Phase 3's programme of work.

5.12 Risk Management – Provision of a Mapping Document on Risk Management to Explain to the Public how Departments / Agencies Go About Risk Management and Selecting Risk Management Options

This activity had been prioritised as 'high' by the EC. The SC agreed with the EC's recommendation that that this activity would be both useful and achievable.

Secretariat to include this mapping document activity in a Phase 3 Forward Plan

6. Financial Statement Oct 2004–Sept 2005 and projected income and expenditure to Sept 2006.

6.1 Ms James introduced this item. Finances are currently healthy, with a balance of £178,780 at the end of Year 3. Projected expenditure for Year 4 of the programme is £109,481. Unallocated funds for phase II are therefore estimated to be £69,299. It was agreed that if Phase 3 of IGHRC is to go ahead it would begin 1 October 2007 and run to 30 September 2010 and that surplus funds from Phase 2 would be used to initially fund activities for the October 2007 to September 2008 financial year.

Secretariat to carry forward unallocated funds from Phase 2 to Phase 3

Secretariat to action

Action

The projected expenditure plan for year 4 of Phase 2 (to September 2007) was agreed.

outstanding activities from the proposed Year 4 of Phase 2

It was also agreed that the next Steering Committee meeting should be brought forward to October 2007 so that Phase 3 contributions for 2008/2009 can be discussed. Prof Levy added that the Secretariat would prepare a costed work programme for Phase 3 ready for discussion at the next SC meeting.

Secretariat to bring forward the next SC Meeting to October 2007 and prepare a costed work plan for Phase 3

7. Evaluation of Phase II

7.1 Dr Wight introduced the discussion of a possible evaluation of IGHRC Phase II activities. It was agreed that a detailed evaluation was not necessary since the courses have feedback forms which provide useful evaluation and the IGHRC guidance documents undergo peer review. However, it was agreed that a brief overview of the successes and/or failures of IGHRC Phase 2 would be useful. It was suggested that the independent consultant used for Phase 1, Dr Sue Barlow, could be commissioned to do this for IGHRC again but at reduced cost since the proposed brief evaluation would be a 2-day paper exercise only.

Secretariat to approach Dr Sue Barlow regarding the preparation of a short evaluation document. This will be incorporated into the Phase 2 final report and forward plan for Phase 3 document due to be published before September 2007

8. Any Other Business

8.1 Dr Wight raised the issue of internal resource commitment, which needs addressing prior to Phase III. It is recognised that the most valuable contributions to IGHRC are made via the EC themselves. There needs to be a commitment from the SC/EC and encouragement of the non-funding Departments/Agencies to find ways to contribute. The SC meeting scheduled for September 2007 should include items on the proposed work programme, costing and resource requirements.

See Action 4.1

8.2 Dr Wight thanked EC members for their hard work to date.

8.3 The next SC meeting was proposed to be held at the DH in October 2007

Secretariat to arrange the next SC meeting

8.4 The meeting closed at 1.30 pm.