

WORKING GROUP ON ACTION TO CONTROL CHEMICALS

WATCH/MIN/2007/1

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Minutes of the 9th meeting of the Working Group on Action to Control Chemicals held on 22nd February 2007 in the Rose Room, Rose Court, London

Members Present

Steve Fairhurst (Chair)
 Steve Bailey
 Robin Chapman
 David Farrar
 Tony Fletcher
 Alastair Hay
 Rosemarie Hutchinson
 Len Levy
 Steve Williams
 Steve Binks

Apologies

Mark Nieuwenhuijsen

Officials Present

Nicola Gregg (Secretariat)
 Hayley Keating (Secretariat)
 Helen McGarry (Secretariat)
 Andrew Darnton
 Damien McElvenny
 John Cocker
 Rob Turner
 Mike Wright
 Helen Ferguson
 Paul Beaumont
 Paul Harvey
 Andrew Smith
 Dave Dillon
 John McAlinden
 Kevin Walkin
 Andie Michael
 Helen Smith

1	Introductions and apologies
1.1	The Chairman welcomed everybody to the 9 th meeting of the committee.
1.2	The Chairman informed WATCH members of the resignation of Dr Mark Nieuwenhuijsen from the committee on his move to Barcelona. An apology was received from Dr Nieuwenhuijsen for his absence from this meeting; his resignation applies from 31 March 2007.
2	Administrative issues
2.1	The Chairman asked for any declarations of interest related to the items on the agenda. Robin Chapman declared an interest in recycling (item 6).
2.2	WATCH secretary Dr Nicola Gregg explained some administrative issues relating to the tabled papers: these comprised copies of the slides for three presentations, a finalised agenda and a paper copy of a document that was distributed late (in relation to item 2) - the Chairman explained that this comprised extracts on 'dusts' from the COSHH Approved Code of Practice and the EH40/2005 Workplace Exposure Limits document.
2.3	Membership The Chairman informed WATCH that this was the last meeting of the current three-year membership cycle. He thanked all those WATCH members who had agreed to serve on the committee for another membership cycle. Two members, Mark Nieuwenhuijsen and

	Ted Smith, had resigned. Dr Martie van Tongeren had been nominated by the TUC to replace Mark Nieuwenhuijsen, and Dr Ching Aw had already been invited by HSE to replace Ted Smith. The June 2007 meeting will be the first one of the new three-year membership cycle.
2.4	Adoption of agenda WATCH members agreed to adopt the proposed agenda (WATCH/Agenda/2007/1).
3	Minutes of 8th meeting
3.1	Members had commented by correspondence on the draft minutes of the 8 th meeting and had signified earlier their agreement with the proposed final version presented here (WATCH/Min/2006/3). They reiterated their satisfaction with the finalised minutes.
3.2	Matters arising/Secretary's report The Secretary summarised the actions that arose at the 8 th meeting of November 2006 and provided an update on the progress that had been made.
3.3	One of the new and emerging issues identified at the 8 th meeting was not on the agenda of the 9 th meeting. This was the item on metalworking fluid, which it was hoped would be on the agenda of the June 2007 meeting.
3.4	Based on the suggestions made by WATCH at the November 2006 meeting, HSE had re-submitted relevant parts of the REACH-related paper on DMELs and DNELs (the section on deriving DMELs for genotoxic carcinogens) to the EU REACH Implementation Project (RIP) 3.2 Expert Drafting Group on 'derivation of DNELs and risk characterisation of non-threshold effects'. With regards to the most appropriate method to derive DMELs when only animal carcinogenicity data were available, HSE stated that the Drafting Group had not been able to decide between advocating the linear extrapolation method or the assessment factor method, and decided that both methods should be included in the guidance. However, a WATCH member corrected this slightly, by saying that the European Commission (EC) had asked the RIP 3.2 group for its views, but envisaged that the EC would make the final decision on which method to specify.
4	How to progress the emerging issue of 'nuisance dusts'
4.1	The Chairman introduced the item by reminding WATCH that at the November 2006 meeting this topic had been the 'new/emerging issue' that had been ranked as the highest priority. HSE had now provided a collection of papers that reflected internal HSE thinking and analysis of this issue. The Chairman introduced Helen Ferguson (HSE), who had been involved in the toxicology assessment work on this topic. He also clarified at the outset that the exposure values in the Institute of Occupational Medicine (IOM) reports of the Pneumoconiosis Field Research Programme (Annexes 1, 2 and 3) needed to be reduced by 20 % to compensate for what would have been the effect of having collected the exposure data in accordance with the ISO/CEN convention on respirable dust that now applies.
4.2	The Chairman then drew the attention of WATCH to the actions listed in paragraph 17 of the cover paper and asked how the committee considered that this high priority issue could best be progressed? The paper was opened for discussion.
4.3	A WATCH member raised two points. The first related to the units used to express the differences in FEV ₁ . He understood that the units were related to standard deviation. He requested clarification of this. Helen Ferguson and Andrew Darnton (HSE statistician) explained that rather than being an absolute reduction in FEV ₁ , differences were expressed as the degree of difference from a standardised value. The difference between an observed FEV ₁ and the predicted value for a person of that age was divided by the residual standard deviation, so that 1 unit was equal to a difference of 1 standard deviation

	<p>from the expected value. The WATCH member asked if the absolute numbers for FEV₁ differences between different groups, expressed in terms of such units, could be compared? Andrew Darnton replied that they could.</p> <p>In response to this answer, the member noted the variation in the ability of different dusts to affect FEV₁ as described in the IOM reports; for example, polyvinyl chloride (PVC) dust exposure appeared to have a three-fold greater effect than coal mine dust. The Chairman mentioned that the IOM report had presented a different interpretation, arguing that coal mine dust and talc had given similar results and that the exposure data for the PVC-exposed subjects were unreliable; the IOM report considered that the differences in FEV₁ reduction were rather similar across the different dusts studied. It was conceded that one could draw various inferences from these data. The WATCH member also thought that there were apparent differences between the dusts in terms of the relationship between their ability to affect FEV₁ and their ability to cause chronic bronchitis and breathlessness; he suggested that this was an important observation. For example, exposure to coal mine dust seemed to have had less of an effect on FEV₁ than other dusts, but had caused significant chronic bronchitis and breathlessness. He did not feel that the potential extent of health problems associated with the dust exposures was brought out in the cover paper. It was argued that the dose-response curve being shallow was justification for no action being required; he did not agree with this logic.</p> <p>His second point related to the calculation that 17 % of active workers exposed to coal mine dust concentrations of 4 mg/m³ would have an FEV₁ decrease of 993ml. The WATCH member wondered what evidence there was for a further decline in lung function in retirement and cited the example of silicosis with massive fibrosis, in which there was a continued decline in lung function in retirement, after exposure had ceased. He thought that there should there be more work done to determine if this occurred with coal mine dust.</p>
4.4	<p>A WATCH member noted his approbation of HSE's assessment of the IOM report (Annex 4) but was uncomfortable with some of the statements in the cover paper. For example, he felt that if there was a scientific reason for looking at a lower threshold of exposure to dusts at which consideration of health protection measures should be triggered, then WATCH should examine this issue and consider making recommendations.</p> <p>The Chairman informed WATCH that the annexed papers for this item had not been put together specifically for this WATCH meeting, as could be seen from the dates of their generation. They had been produced as a contribution to the formative stages of the long-term respiratory disease aspect of the Disease Reduction Programme (DRP), in which one of the issues being considered was the need and justification for action on exposure to dust in general. The papers were produced to inform the judgement that HSE had to make on the relative priority that should be accorded to action to control exposure to dusts in general, compared with more targeted initiatives on specific causes of chronic obstructive pulmonary disease (COPD).</p> <p>Range of dusts considered in the IOM report</p> <p>A WATCH member thought it a weakness in the data that the IOM research had concentrated on just a few dusts rather than as many dusts as possible, particularly as there are data sets on other dusts that could have been used, for example on kaolin and carbon black studies that have quite good exposure and FEV₁ data.</p>
4.5	<p>Another member accepted that there would have been a need at the outset, for cost and timing reasons, to specify the scope of the research and that it might have been impractical to instigate a project that covered many dusts.</p>
4.6	<p>Recommended concentration threshold for dusts in general that should trigger further consideration of the situation</p>

	<p>A WATCH member commented that, irrespective of any particular effects on health, dust exposure creates an unpleasant environment in which to work and generally it is easy to control dust exposure to fairly low levels. He thought that, in pragmatic terms, occupational exposures to dusts in some workplace situations could and should be lower and that the current airborne concentrations of dust (10 mg/m³ inhalable dust and 4 mg/m³ respirable dust) that trigger COSHH considerations did not represent what is readily achievable by good occupational hygiene practice. The '10/4' values then became an excuse for taking no action and were unhelpful to good occupational hygiene practice. In addition, these values were unacceptable to many workers, who considered the accumulation of dust in hair, nose and clothing to be indicative of inadequate health protection. The WATCH member thought that, irrespective of an association of lower levels of dust exposure with COPD, it was time to consider the need to revise the '10/4' values in line with modern expectations for the workplace environment.</p>
4.7	<p>Another WATCH member considered that the review of coal mine dust had suggested that there may be some health impacts from exposures at or below such 'trigger' concentrations and perhaps something should be done about this. He questioned if coal mine dust is a good example of a 'low toxicity dust'?</p>
4.8	<p>Rob Turner (HSE Occupational Hygiene) emphasised that the recommended 'trigger' exposure concentrations (10 and 4 mg/m³) are not designated exposure limits, but rather they are intended to indicate to employers that exposure should be controlled at least down to that level, and preferably lower. When exposure was potentially in the vicinity of these levels, employers should consider the specific health issues relating to the dust(s) in question and take account of the characteristics of the operation and options for control, so that control is targeted in a specific way to the dusts in question and their associated potential health impact. If exposure is above these 'trigger' concentrations, employers should be working to reduce the exposure.</p>
4.9	<p>A WATCH member summarised the discussion so far by saying that at the level of 4 mg/m³ respirable coal mine dust, the average decrease in FEV₁ was quite small, but there was a 10 to 17 % increase above the control group in the number of people having lost almost one litre of lung function. Such dust concentrations also resulted in an unpleasant working environment. He considered that there needed to be some more investigation of the data to determine if 2 mg/m³ would be a better 'trigger' concentration to aim for; he was forming the impression that control to such a level was achievable.</p>
4.10	<p>The Chairman asked for clarification and collective understanding of the consequences for the working environment of dust exposures of 10 mg/m³ inhalable or 4 mg/m³ respirable dust. He was aware of statements that were sometimes made that such an atmosphere is difficult to see through. WATCH members replied that this was an exaggeration. The effect would depend to some extent on particle size, but in general, the consequences would be that in certain light conditions, for example if there was cross-lighting, a haze would be visible. Additionally, one would get a significant build-up of dust particles on surfaces in the workplace.</p>
4.11	<p>A WATCH member commented that the relevant aspects of COSHH Essentials were not designed to result in a respirable dust concentration of exactly 4 mg/m³: he considered that adherence to the relevant COSHH Essentials control guidance should result in dust levels lower than that. The Chairman reflected back to WATCH a general impression being created by the discussion, that it is possible to control dust exposure in most circumstances to below 4 mg/m³ (respirable dust) or 10 mg/m³ (inhalable dust). WATCH agreed with this statement.</p>
4.12	<p>The Chairman brought WATCH back to the graph on the second page of Annex 2 as indicating the best assessment of the likely dose-response relationship for the impact of coal mine dust exposure. He reminded WATCH that the values shown for dust concentrations should be reduced by 20 % so that, for example, 5 mg/m³ on the axis</p>

	<p>would equal 4 mg/m³ under the ISO/CEN convention for respirable dust sampling/measurement.</p> <p>A WATCH member asked if there was a degree of extrapolation or interpolation in the derivation of the dose-response curve over the range of exposures presented for this graph? Helen Ferguson drew the attention of WATCH to Table 4 of Annex 3, which provided more details. WATCH inferred that there was a good amount of actual observed data for exposures in the 1 to 3 mg/m³ range. The Chairman reflected to WATCH that the data suggested a continuum of effect along the exposure axis, as far down as data were available; there was not a clear threshold. A WATCH member cautioned against regarding any particular exposure value (and its associated effect) as being robustly established; he considered that the trends and patterns that the data were showing were more important.</p>
4.13	<p>The Chairman then referred the WATCH members back to the cover paper, in particular the set of questions that, in November 2006, WATCH had considered were a high priority to address. These were listed in paragraph 5. He summarised the discussion so far by saying that members' views indicated that, although one could suggest ways in which the information could perhaps be added to, or examined in further depth, the overall conclusions reached by the IOM research were valid. He then asked for comments on each of the questions listed in paragraph 5:</p> <ul style="list-style-type: none"> • What is the evidence for the association between general dust and COPD? • How adequate is the 'nuisance dust' standard (10 or 4 mg/m³)? • Some people consider 'nuisance dust' an inappropriate label – can we find a better name? • What is the adequacy of existing control guidance for nuisance dust? • What is the state of play in relation to this issue and the COPD element of the Disease Reduction Programme?
4.14	<p>Evidence for the association between dust exposure in general and 'COPD'</p> <p>The Chairman invited views from WATCH members on each of these questions. At the outset, he confirmed with WATCH that 'COPD' in the above questions should be broadened to denote long-term respiratory problems. A WATCH member then noted that Tables 3 and 4 of the IOM document (Annex 1) demonstrated evidence for lung damage. If a working life of 40 years was assumed, he considered that a step-change in the prevalence of chronic bronchitis and breathlessness was apparent in workers exposed to between 1.25 and 3.75 mg/m³ respirable talc and coal mine dust; for heavy clay workers, such changes occurred above 1 mg/m³ respirable dust. Another member declared that he found the lung function data more robust. He considered that there was FEV₁ data in support of the above synopsis, adding that although the average decrease in lung function at these exposure levels was not particularly large, there were individuals for whom the loss was more significant, and of a degree that could lead to clinical problems. The Chairman confirmed with WATCH that it considered that there was evidence for a decrement in lung function with exposures to respirable dusts above 1 mg/m³.</p>
4.15	<p>Adequacy of the 'nuisance dust' standard</p> <p>The Chairman informed WATCH that the second question had been phrased in a particular way, with 'nuisance dust' within quotation marks, because this term was not used within HSE documentation, including in the COSHH regulations and associated COSHH Approved Code Of Practice. In terms of a 'standard', the '10/4' threshold was intended to be an indicative cross-over point; for exposure higher than this one needed to take serious cognizance of the situation and act appropriately. He noted that the data in the package presented to WATCH only permitted WATCH to consider the situation for respirable dust (that is, the 4 mg/m³ aspect of the issue), not the situation for the inhalable</p>

	dust (10 mg/m ³) aspect.
4.16	A WATCH member expressed alarm at the extract from COSHH that stated that substances should be considered as hazardous to health if present at concentrations greater than or equal to 10/4 mg/m ³ , which seemed to imply that concentrations below this were of no concern. Another member thought that the level of 10/4 mg/m ³ was too high for such a 'trigger' level, considering that it was easy to control dust concentrations to about 5 mg/m ³ inhalable dust in most factory situations, without any great effort.
4.17	Rob Turner emphasised that at levels below the '10/4' values, the intended sense of the COSHH guidance is that employers should consider the particular potential for harm that could arise from exposure to the specific dust and should still be trying to reduce exposure to as low as reasonably practicable. However, a WATCH member suggested that some people would see the '10/4' values as 'walk-away' reference points and would not undertake any further control measures if exposures were no higher than these levels; other members concurred with this point.
4.18	Appropriateness of the term 'nuisance dust' A WATCH member thought that 'nuisance dust' was not an appropriate term because it implies that 'nuisance' is the concern rather than health effects. The term 'low toxicity dust' has a different connotation, the inference being that such a dust has a health impact, albeit mild; terminology is important.
4.19	The WATCH member commented that in the past, when there was more emphasis on individual substances, their measurement and trying to reduce exposure levels to them, there was a need for demarcation between problematic dusts with known potential to affect health and those with lower toxicity. However, now the concept of 'nuisance dust' was outdated. He thought that now would be the right time to look at the control of exposure to dusts in general, with the aim of improving practice. He also noted that this issue covered an extremely wide range of industries.
4.20	Another member suggested that any nomenclature should attempt to express what people were being exposed to. A term such as 'dust not otherwise specified' might be appropriate for some situations, but its use should not apply to specific dusts such as 'coal mine dust' or 'talc dust', the properties and control of which should be assessed on their own merits. Another WATCH member thought that if any generic term is used it may also be necessary to include in it reference to the solubility of the dust.
4.21	Adequacy of existing control guidance for 'nuisance dust' A WATCH member commented that he did not know of any guidance that targeted 'nuisance dusts' <i>per se</i> . Most generic guidance for dusts would keep levels below 10/4 mg/m ³ ; it might be that people were not being sufficiently well directed to such guidance. Rob Turner emphasised the need for all concerned to consider the effectiveness of any controls that were in place at a worksite; it is not just a case of having equipment, but whether or not the equipment is properly positioned and functional.
4.22	Another member of WATCH illustrated where difficulties could arise in deciding on control measures by giving the example of demolition, during which there might be brick dust with its own characteristics, but there would also be many other unspecified dusts. He stressed that people needed to know which category of material and type of control approach they should be using. It could be argued that existing guidance is insufficient in this respect.
4.23	Relationship of this issue to the COPD element of the Disease Reduction Programme The Chairman introduced Helen Smith, who managed the long-term respiratory disease project within the DRP. He advised WATCH that in the context of the necessity to prioritise against available resources, this issue was not seen as a high priority within this project at

	the moment. The Chairman then asked WATCH for comments.
4.24	A WATCH member was of the opinion that appropriate control of exposure to dust in general is a quality of life issue, for example with regards to the possibility of a continuing decrement in lung function even after retirement. He noted that during employment, employers will tend to monitor health, including respiratory performance, but after retirement there is no such monitoring. Normally, no further data on lung function will be obtained until clinical problems arise, by which time the quality of life has been reduced irretrievably. He thought that it was important to prevent this.
4.25	Another member thought that the scientific basis for the '10/4' thresholds, when established, was poor. More data were now available. He believed that ACTS and others should be provided with the current scientific position surrounding the '10/4' values.
4.26	The Chairman asked Helen Smith to clarify for WATCH what were the current highest priority issues in the long-term respiratory disease project of the DRP. Helen Smith thanked WATCH for the interesting discussion. She said that one of the priorities was respirable crystalline silica and ensuring that its new lower Workplace Exposure Limit (WEL) is being adhered to, which involved intervention in the areas of brick making, quarrying and stonemasonry. Additionally, the project was beginning to look at the construction/demolition industry and some sectors in agriculture. She also referred to an HSE research project on improving engineering controls generally, which had great relevance to controlling exposure to potential causes of respiratory disease. With regards to COSHH, she needed to understand if in its current form it was adequately driving the appropriate control of substances that could cause COPD. Helen Smith said that she was interested in what dusts currently fall into the 'low toxicity' category for which one might not be able to impose control tighter than '10/4' because they do not fall under any other 'substance hazardous to health' criteria.
4.27	<p>A range of additional comments were made by members. Two members argued that it would be inappropriate to seek to establish new control standards before addressing the question of how well people were implementing current standards. One member was concerned that those trying to do the appropriate thing would be disadvantaged by yet further changes whilst those not engaging with current regulatory obligations would also not take account of any new standards. Another member mentioned the 'dirty worker' phenomenon, whereby a dust-contaminated worker can be a significant route for secondary exposure of others, e.g. family members. Another member asked if, in relation to establishing generic standards for dust control, there were any lessons to be learned from other European countries. The only extensive EU work on this issue that the Chairman was aware of was in Germany; there had been no consideration at, for example, SCOEL.</p> <p>A WATCH member referred to paragraph 12 of the cover paper, which mentioned a 7 % excess of individuals with severe FEV1 loss in those exposed to coal mine dust compared with the control group used in the IOM study. In considering this, he had found Annex 5 helpful, in which HSE had reported an average background prevalence of COPD in non-smokers aged 60, who had not been occupationally exposed to dusts, irritant gases, vapours or fumes, of 5 %, with a range of 0 to 8 %. He therefore thought that the negative controls in the IOM study, showing a 12% prevalence of COPD, should be treated cautiously, because they appeared to show a rather higher than normal background prevalence of COPD which might have been linked with the potential for their exposure to coal mine dust during surface work.</p> <p>Another WATCH member returned to the issue of nomenclature; he thought that different specified dusts (such as coal mine, talc, PVC), may or may not merit being in one generic class, since he suspected that there would be differences in their properties. He thought that COSHH needed to provide more guidance on when a dusty material is 'in' or 'out' of any particular category. CHIP classification might help in this context, although the</p>

	<p>Chairman reminded WATCH that CHIP was not helpful for process-generated dusts, because it relates to supplied substances and preparations. Another WATCH member thought that for many dusts there would not be any specific helpful toxicological data (such as FEV₁ dose-response information), in which case one would have to fall back on a generic position. In this context he suspected that the best values for a scientifically well-defended generic position representing adequate control would be lower than 10 and 4 mg/m³, although from the available data it was very difficult to specify alternative, lower levels.</p>
4.28	<p>The Chairman thanked members and attendees for their comments. In concluding what had emerged from the discussion as key points for progressing the emerging issue of ‘nuisance dusts’, he sought and received confirmation from the committee that the conclusions of WATCH were that:</p> <ul style="list-style-type: none"> • with some qualifiers (presentationally, a little more could be done to clarify the health effects of exposure to the dusts studied; and only a limited number of dusts had been included in the IOM research), the IOM research, particularly that related to the effects of coal mine dust, represented a thorough, robust analysis and WATCH agreed with the IOM/HSE assessment of the findings; • it recommended characterising the best dose-response position that can be extracted from the data on the effects on the respiratory tract of exposure to coal mine dust; and then to make the most defensible statements justified by the data for the other dusts included in the IOM analysis; • the dose-response data indicated that the effect on the respiratory tract of exposure to coal mine dust, within the exposure range studied, occurred as a continuum, with no clear threshold appearing; • the term ‘nuisance dust’ was not being used in HSE documentation; WATCH recommended that any generic term used in the future should be a fall-back term that clarifies its exclusion of specified entities (e.g. ‘dust not otherwise characterised’, which would exclude, for example, ‘chalk dust’); • it recommended consideration of some work to better guide duty holders as to what category of dust they might be dealing with and hence, if specific guidance or control standards for that dust were not available, which benchmark or reference would need to be adhered to; • it recommended reconsideration of the wording of some of the statements in the COSHH ACOP and in EH40 in the context of the discussion that had taken place; • the next ACTS meeting (in May 2007), at which there will be consideration of priorities for future years of the Disease Reduction Programme, would be a suitable destination for the distillation of the dose-response curve for coal mine dust and for any associated observations and recommendations from WATCH, in relation to the issue of exposure to, and control of, dusts in general
4.29	<p>ACTIONS: HSE will produce a succinct portrayal of the dose-response for the effects of exposure to coal mine dust on the respiratory tract, together with associated comments, as reflected in the above paragraphs. This is intended for ACTS to be made aware of at its May 2007 meeting. In view of timings, the WATCH Secretariat will clear by correspondence the draft of this analysis with WATCH, prior to its inclusion in the May 2007 ACTS papers.</p>
5	<p>The Disease Reduction Programme (DRP): cancer project</p>

5.1	<p>The Chairman introduced Dr Dave Dillon, the Project Manager of HSE's DRP Cancer Project. The Chairman indicated that from an HSE perspective the two previous discussions with WATCH about the 'chemical carcinogens' element of this project, in June and November 2006, had given the feeling that the basis for, and objective of this work, had not been explained clearly enough. Dr Dillon introduced some of the HSE project team members who were present at the meeting (Damien McElvenny, John McAlinden, Andrew Smith). To better inform WATCH of the purpose of the initiative and the approach being taken, Dave Dillon gave an overview. He explained that he hoped to enhance the clarity and transparency of the work and the input and expectations of WATCH. Dr Dillon stressed the importance placed on stakeholder engagement, which was a key strand of this work, with the hope that ultimately stakeholders would be active delivery partners in intervention activity. It was noted that WATCH has been an integral part of the 'research and intelligence' stage of the work. It was envisaged that WATCH, as a committee, would not be involved in the later stage of delivering intervention activity, although individual members of WATCH may have such involvement, for example through their role in industry.</p>
5.2	<p>The Chairman asked WATCH to reflect that it had previously seen two papers illustrating elements of what Dave Dillon had covered: toxicological profiles (June 2006), and use/exposure profiles (November 2006) for identified carcinogens; WATCH had made valuable comments on both items. Nevertheless, the Chairman said that his perception on both occasions was that there was a general lack of understanding of where the work was going and how the various parts would fit together. Today, Dave Dillon had tried to draw the elements together to illustrate how the toxicological and exposure data would be used, alongside other intelligence gathered by HSE. The Chairman reminded WATCH that this paper had no actions for it to consider; the intention was to try to make the committee feel more comfortable and clear in its understanding of the work. The paper was then opened for comments.</p>
5.3	<p>Potency of profiled carcinogens</p> <p>A WATCH member commented on the work being done under the Cancer Project that aims to estimate the current burden of occupational cancer in the UK. This work was focussing on well-characterised exposure situations for which there is evidence of an increased risk of cancer in humans; such evidence related mainly to historic exposure scenarios. The work was not addressing potential human carcinogens for which there is no robust human evidence, a feature which must influence the results that will emerge. In terms of HSE constructing profiles of known human chemical carcinogens, it is clear that the current cancer burden relates to historical exposure, and exposure trends for most established human carcinogens will be on a downward slope. He wondered if all this indicated a danger of focussing on substances that were not necessarily a priority for current and future attention? He also noted that previously WATCH had felt that there was a lack of transparency in the profile summaries in terms of the criteria on which a conclusion was reached that a particular chemical carcinogen was 'a problem' or 'not a problem' and on how potency assessment had been made, and that WATCH had not been given further information on these issues.</p>
5.4	<p>Andrew Smith (HSE) then reminded WATCH that at the June 2006 WATCH meeting no potencies had been definitively assigned by HSE to any of the chemicals covered by the profiles of the available data on known human and animal carcinogens. At that point it had been suggested that it might be possible to use potency to prioritise the chemicals so that, when the occupational hygienists were gathering new information, carcinogens of potential importance were not missed; to this end it had been thought a good idea to identify some known animal carcinogens that regulatory systems had already considered to be particularly potent, based on metrics already used within Europe, such as the TD50 and T25. In doing so, the occupational hygienists could be notified of those chemicals for which there had already been discussion in Europe by regulatory authorities and decisions</p>

	made that they are of relatively high potency, to be sure they were not missed in the data collection exercise on use and exposure. A 'high potency' flag did not automatically mean that such chemicals merited a high priority for action and in fact most of those substances with a 'high potency' flag appear not to be used in any significant amounts in the UK. Dr Smith emphasised that the profiles were not intended to generate new conclusions on carcinogens, but were capturing only what was already known and providing a regulatory history of the substances. The example of beryllium was given, for which there is equivocal evidence of beryllium exposures having caused cancer in humans; the profiling exercise would not attempt to take this debate forward to resolution.
5.5	The Chairman emphasised that, in its portrayal of the chemical carcinogens work, HSE was asking if what had been done and what was being planned was generally the right way to approach the matter, given the ultimate objective of selecting priorities for intervention activity. It was not looking to be specific about matters such as whether or not a certain criterion was the right way to decide on potency. WATCH was not being asked to determine what the priorities for intervention should be, because ultimately it would be the stakeholder workshop set for June 2007 that would direct the way prioritisation decisions were taken by HSE. He asked WATCH to recall that in June 2006 HSE had set out and invited comments from WATCH on different ways of assessing potency; and had received and acted on the views of the committee. For example, he noted that previous suggestions from WATCH had led to all known human carcinogens being considered as 'high potency' in the toxicological profiling exercise.
5.6	A WATCH member thought that the approach was good, but expressed a cautionary note about the potential range of factors that might be allowed to influence the ultimate choice of priorities. A WATCH member questioned the meaning of the phrase 'processes considered to be a problem' in one of the slides in Dave Dillon's presentation. Damien McElvenny replied that although some processes were designated as carcinogenic by IARC, processes could not be classified under EU Classification & Labelling procedures, and hence their inclusion in the analysis was as a separate category from those of the EU/IARC carcinogen categories accommodating substances.
5.7	A WATCH member was concerned that different elements of the Cancer Project were generating perspectives that did not concur with each other. He was concerned about the congruity between the work on estimating the current burden of occupational cancer in the UK and that on constructing use/exposure profiles for chemical carcinogens. For example, polycyclic aromatic hydrocarbons (PAHs) had been identified as a potential problem in one stream of work but not the other. Another example was that one of the work streams had identified an elevated occurrence of lung cancers in painters, whilst the other had not examined the use/exposure profile for chemical carcinogens in painting. The WATCH member wondered how the Cancer Project team would bring together the various work streams in presenting information to inform the determination of priorities? Dave Dillon replied that the team did not yet have all the answers, but would be in a better position in this respect by the end of May 2007. He was aware that it would be necessary to think carefully about the information each work strand was providing to help create a total picture, and how this could be assembled in a form that would best suit the needs of the various parties involved in further considerations.
5.8	Impact of REACH on the profiling exercise In relation to the REACH Implementation Project on risk assessment and the establishment of 'DMELs' for carcinogens (covered at the November 2006 WATCH meeting), a WATCH member commented that if DMELs involved setting a control standard that would have to be strictly adhered to, he wondered if this approach, when in place, would deliver a significant contribution to the control of exposure to carcinogens and the prevention of occupational cancers? Another member asked if it was thought that REACH would have an impact on the profiling process, in terms of information provision?

	A further WATCH member thought that, regardless of REACH which will have EU-wide applicability, scoping whether or not a carcinogenic chemical is being used in the UK, and how many people are potentially exposed in UK workplaces, would continue to be important national considerations.
5.9	Andrew Smith responded to these points by saying that, during a workshop held in January 2007 to consider the occupational hygiene aspects of the chemical carcinogens work, it had been thought that REACH would be rather a blunt instrument in these respects. It would enable restriction measures to be introduced, which might bring about better control and awareness at the more poorly controlled end of the spectrum, in certain industry sectors. However, overall progress might be quite slow, particularly in respect of Authorisation decisions. A WATCH member thought that some influence could operate in the opposite direction, in that the carcinogen profiling work being undertaken here might inform REACH priorities.
5.10	June 2007 stakeholder workshop and future plans A WATCH member asked if decisions on what interventions will be undertaken would be made at the June 2007 stakeholder meeting? Dave Dillon replied that final decisions would not be taken then; views would be exchanged on what the various parties involved feel might be done, but the eventual commitments would be made a little later. A secondary aim of the stakeholder meeting will be to identify knowledge gaps that are a high priority to address. The Chairman informed WATCH that the ultimate objective was that the next phase of the DRP (beginning in April 2008) should 'hit the ground running' on interventions, with everything in place and ready to go from 1 April 2008. Hence it was to be hoped that at the June 2007 workshop HSE and stakeholders would be close to identifying priorities for interventions, but there were several months available after the event to finalise decisions.
5.11	Andrew Smith emphasised that the 'research' and 'delivery' aspects of this project would continue to cycle, and any significant carcinogens missed in the first round of intervention activity would not be dismissed automatically from any future consideration of carcinogens by HSE.
5.12	Another WATCH member asked if the HSE research report mentioned in Dr Dillon's presentation, estimating the current occupationally-related burden of six important cancers, due to be finalised in Spring 2007, would be available to WATCH? Damien McElvenny responded that the draft report had now been received and had been sent to a group of cancer experts for comments. It was hoped that the report could be finalised and published, and also made freely available before the stakeholder workshop in June 2007.
5.13	The Chairman then confirmed with WATCH that there were no further specific comments and that the session had helped to clarify and satisfy the understanding of WATCH in regard to the approach being undertaken and its rationale, given the ultimate objective of the work. He then closed the session.
6	Low-level exposures to asbestos
6.1	The Chairman introduced this item and Andrew Darnton and Damien McElvenny from HSE's Statistics Branch. He reminded WATCH that the topic of low-level exposure to asbestos was deemed to be a high priority new/emerging issue at the November 2006 WATCH meeting. He also noted that discussions on this issue had taken place within HSE over the past 12 months. There was a clear consensus that this was an important issue to be progressed, but it had to be decided how this was to be done.
6.2	A WATCH member had two questions in relation to the Hodgson and Darnton paper (Annex 1). He asked if any of the data sets would need to be re-evaluated, since the paper mentioned that some of the datasets needed to be reassessed, but the data had not been available at the time the paper went to press. He wondered if, subsequently, any of these

	<p>had been reassessed and, if so, if the outcome would affect the model?</p> <p>The second point related to exposure to chrysotile at low concentrations, and whether the model could be improved in terms of its ability to estimate risk at low concentrations? The WATCH member also noted that, according to a recent presentation by Professor Julian Peto, 30% more mesotheliomas than in the past are occurring in people not obviously occupationally exposed to asbestos; this appears to be a genuine observation; it isn't simply that such cases have previously been overlooked. He therefore wondered if this reflected more asbestos being around in the general environment, and what bearing this might have on risk estimates?</p>
6.3	<p>Another WATCH member referred to the two discussions on asbestos-related items at WATCH in 2006, during which WATCH had been asked to assess what exposures would be in particular scenarios. In the course of the discussions a member had suggested that relatively low levels of exposure, even if they were below current statutory limits for occupational exposure to asbestos, should still not be regarded as acceptable. He also referred to a recent meeting on 'Asbestos Essentials', during which new guidance had been approved. He was comfortable that following this guidance would result in securing the control of asbestos exposure to low levels, but from a health protection standpoint it was not clear if these levels were low enough. He thought that it was unsatisfactory to generate advice on how to control asbestos without knowing if the level of control secured was adequate to protect health. He therefore thought that progressing this item was important and necessary.</p>
6.4	<p>The Chairman then asked if any members dissented from the view that progressing the item was important and necessary. All members signified that they agreed. A member commented that the British Occupational Hygiene Society (BOHS) was to hold a meeting in Spring 2007 on low-level environmental asbestos exposure and the risks involved; WATCH needed to be aware of this.</p>
6.5	<p>WATCH as the appropriate committee for this issue; and the use of ad hoc members</p> <p>The Chairman continued by suggesting that a key issue would be WATCH's level of comfort, either with or without contributions from ad hoc members, to make a recommendation on this issue. Another possibility was that it could be referred to a more specialist committee, such as the UK government's Committee on Carcinogenicity (COC). He then asked for perspectives from WATCH on the options available for progressing this issue and for its views on timescales.</p>
6.6	<p>A WATCH member replied that for the 2006 WATCH items on asbestos it had been very helpful to have three additional ad hoc experts involved. Others agreed with this. The Chairman asked if the committee would feel comfortable in tackling this issue, with the objective of making a statement on what could be said about the levels of risk from low level exposure to asbestos? He remarked that, inevitably, there would be media interest and possibly controversy, with not everybody accepting the outcome, whatever it were.</p>
6.7	<p>WATCH members indicated that they considered WATCH to be the appropriate committee to address this issue. One member suggested that there was a very good paper available (Hodgson and Darnton [H&D], 2000, Annex 1), which forms the basis of the current HSE view on the risks of exposure to the different forms of asbestos at various levels. He thought that one outcome might be that WATCH would endorse this paper and the analysis it presents. However, he noted that the paper did not always quite meet the needs of duty holders. He considered that if progressing this item could help HSE to continuously improve the advice it provided to duty holders on this subject, then that would be a positive outcome. Andrew Darnton explained that the risk models in the H&D paper are based on relatively high exposures within historic occupational cohort studies, and extrapolation of the models is required to make quantitative risk estimates for low-level</p>

	<p>exposure scenarios. He continued by saying that there may well be a lack of evidence to guide how far, and in what manner, extrapolations of the models to low exposures could be legitimately carried out. There is some doubt therefore about whether question of risks from low-level exposure can be answered on the basis of the evidence currently available. The Chairman commented that he would want WATCH to appreciate that it would have the option of saying that below a certain level of exposure there was no information on which to base reliable risk estimates.</p>
6.8	<p>Another WATCH member added that if WATCH is to be the committee that progresses this issue then additional advice from ad hoc members with particular expertise on asbestos would be useful and would add credibility to the outcome; for example, the inclusion of a chest physician to help in considering the issue of mesotheliomas that occur in people with no identified exposures to asbestos. The Chairman suggested that Professor Julian Peto and Robin Howie would be strong candidates for inclusion as ad hoc experts.</p>
6.9	<p>Policy perspectives</p> <p>Kevin Walkin (HSE Policy, Cancer and Asbestos) commented that it would be wise not to try to address every particular scenario that could be related to the central issue of 'low-level' exposure; reliable answers to each and every question might well not be available. He observed that there were very polarised views on asbestos and that, from a policy perspective, often the science seemed to be ambiguous. However, he remarked that he would like to be able to reflect a scientific advisory committee position on the risks from low-level asbestos exposure, even if part of the message is that the science has not yet provided all the answers.</p>
6.10	<p>The Chairman asked what, from a political perspective, the time pressures might be to produce a WATCH position, once the initiative had commenced? Kevin Walkin answered that he was anxious to see the work adopt a measured approach and that on any aspect of this issue it could only help to be able to say that HSE was trying to resolve the issue through a scientific committee. He thought it would be important that there would be general awareness and recognition that the work was underway, but cautioned against continual engagement with the media immediately upon anything being said. He stressed that the goal should be scientific consensus. He also noted that people continued to work with asbestos on a daily basis, so that any statements would have to be carefully and precisely worded to ensure their accuracy.</p>
6.11	<p>A WATCH member wanted to put some scope around what WATCH was considering dealing with. For example, would the project include exposure in children? He asked if the scope would be limited to occupational exposure; and within a particular range of exposure concentrations? Andrew Darnton commented that statements about the risks from low-level occupational exposures would inevitably lead to inferences about similar exposures in non-occupational settings being made.</p> <p>The Chairman suggested that different exposure situations could be addressed in stages; a position on occupational exposures might be delivered first, with consideration of its extrapolation to general public exposures being addressed at a later stage. Two WATCH members commented that it would be difficult to exclude the addressing of public exposures occurring through work activities, such as children hugging their exposed parents, or (as in the January 2006 WATCH item) the use of drawing pins bringing about the release of asbestos in schools. Another WATCH member thought it would be wrong not to include consideration of the general public in any positions derived, in view of the mesotheliomas that are now occurring in apparently non-occupationally exposed individuals.</p>
6.12	<p>Another WATCH member reflected that a potential outcome might be a conclusion that not enough is known about low-level asbestos exposures, and this could prompt interest in</p>

	further research in this area, particularly if WATCH were to suggest what additional information was required.
6.13	<p>The Chairman then sought and received confirmation from WATCH that its recommendations were: that WATCH is the appropriate committee to progress this issue; and that, in dealing with this issue in the future, WATCH would be strengthened with a number (perhaps up to 5) of ad hoc experts. At the June 2007 meeting, WATCH would look to agree how it will tackle this issue (e.g. timeline, additional ad hoc experts to be invited, the work to be done in the first stage, etc). He also advised WATCH that Garry Burdett (HSL) had offered to be the HSE anchor point for progressing this issue.</p> <p>Andrew Darnton informed WATCH about similar risk modelling work by Berman and Crump for the US Environmental Protection Agency and that it would be informative to know more about how the issue of low level exposure was being taken forward by the EPA..</p> <p>The Chairman suggested that WATCH should aim to have an in-depth session at the November 2007 meeting, involving additional ad hoc experts, the outcome of which he hoped would reflect appreciable progress having been made towards addressing some of the key questions around the issue of low-level asbestos exposure. A WATCH member commented that all ad hoc members would need to be clear that the committee was aiming for consensual working and arrival at a consensus. The Chairman replied that he would express these sentiments; however, during the discussion of any item any WATCH member was free to dissociate him/herself from an emerging position and to have this reflected in the minutes of a meeting. He also asked if, given the nature of the issue, any WATCH member wished to become involved between meetings in helping to advance this project; no-one wished to do so.</p>
6.14	HSE ACTION: For the June 2007 meeting, to prepare a scoping document setting out a draft plan for how this work should be advanced through WATCH.
7	Modern exposure intelligence strategy
7.1	<p>The Chairman introduced Paul Beaumont (HSE Occupational Hygiene Unit) who gave a presentation titled 'Towards a modern exposure intelligence strategy'. He emphasised the need for intelligence on current occupational exposures and that a new strategy needed to be developed to accomplish this, which should be aligned with modern approaches to risk management. Some of the important points were how to capture the best available knowledge; and how to identify stakeholders who could help in this respect, since HSE would not necessarily be able, or need to be, at the centre of such a strategy. It was shown that there has been a decline in exposure measurement, illustrated by the National Exposure Database (NEDB) established by HSE. The decline has been less dramatic for a few substances, e.g. isocyanates, where, exceptionally, many recent occupational exposure measurements had been collected in a very targeted approach (within an initiative focussed on isocyanate-induced occupational asthma), illustrating that such data can still be gathered, but it was very expensive to do and such investigative work was rare nowadays. Paul Beaumont explained the concept behind a modern risk management intelligence initiative, which would capture qualitative as well as quantitative information on the conditions of chemical use and control. Such an initiative would seek to capture a wider spectrum of information than that traditionally employed in gathering data suitable for NEDB. It was proposed that a pilot be undertaken to test the viability of the initiative. The Institute of Occupational Safety and Health (IOSH) was envisaged to be a potentially major stakeholder body that could help with the venture, analogous to a recent highly successful partnership initiative for a safety hazard programme previously lead by Paul. Paul Beaumont then presented key potential applications for the new strategy, and actions for WATCH to consider.</p>

7.2	<p>A WATCH member was in broad agreement with the proposed approach. He commented that much of what is known in terms of exposure is held within industry and not collected together to be published. The proposed initiative would begin to access such data. He added that, historically, exposure databases sought only to provide numerical data for exposure, and that other information was used only to prove that the numbers were valid. This new initiative would show that contextual information had a value in itself, even without numerical exposure data, for example to inform on the current situation in terms of control measures.</p> <p>The WATCH member also thought that the strategy had a strong link with, and would provide new opportunities for working under COSHH Essentials. COSHH Essentials provided well-described exposure scenarios for a whole range of specific tasks. If, for each of these exposure scenarios, one could undertake the exercise now being proposed, information would be collected on what control measures were currently in place and the resultant exposures arising under these conditions. He thought that this would inform exposure assessments made under REACH, particularly if the approach could be adopted across the EU.</p>
7.3	<p>Resource Issues</p> <p>The Chairman asked other WATCH members for their views. A WATCH member responded that it would be necessary to examine the practicality of the approach. The reason for the lack of generation of current occupational exposure data was the lack of occupational hygiene-related resources within current workplaces. He thought that the proposed new initiative had the best of intentions and agreed that it had synergy with the 'exposure scenario' work that would need to be undertaken under REACH. However, he considered that the work would need to be presented in a manner that was simple and to which industry could easily relate. Linking it to COSHH Essentials would probably be the best and most effective approach. Paul Beaumont responded that he saw IOSH as a crucial intermediary body. There are 29,000 occupational health professionals registered with IOSH (which had agreed to participate in the pilot project), most of whom worked in the UK. The proposed pilot would involve approximately 1000 of them providing data twice a year; he hoped that this would reassure WATCH on the availability of resources in terms of occupational health professionals willing to contribute to information gathering.</p>
7.4	<p>A WATCH member commented that the lack of occupational hygiene resources in industry was a real issue for the viability of this initiative. He suggested that it would be difficult to persuade people to supply data now, when little or no such data had previously been furnished. However, he thought that it would help for HSE to inform industry that it was undertaking this project and would be requesting data; this awareness might make people more forthcoming.</p> <p>Rob Turner (HSE) replied that there were also resource issues within HSE and that, on its own, HSE could never construct a full picture of current occupational conditions across the UK. Although HSE would continue to do some occupational hygiene assessments of its own, thereby generating useful information for this initiative, he thought that the essence of the proposal was to involve as many people as possible. An example would be to ask members of BOHS and IOSH to collect and collate data. In this respect, he emphasised that sometimes industry is reluctant to offer data directly to HSE, because of HSE's enforcement role. Linking the proposed strategy to, for example, the strengthening of COSHH Essentials would be useful for promotional purposes. An advantage of IOSH or BOHS collecting and collating the data would be that the information would become anonymous, as far as HSE was concerned, which should maximise the value and usage of the data for the benefit of all. He recognised that no-one would collect large amounts of data without a defined purpose; currently, HSE was undertaking data collection for defined purposes, for example horizon-scanning, enforcement work and the pursuit of information for the DRP. Accepting the need for a range of bodies to be involved, he thought that it</p>

	would be useful to collect into a single database the data from different contributors. He explained that it was envisaged that the new strategy and database would provide many potential benefits, such as the opportunity for industry to check its own control approaches and associated exposure levels with those achieved by others; the key would be to overcome and minimise the problems inherent in different stakeholders working together and to promote the benefits of so doing.
7.5	<p>Quality of the data</p> <p>A WATCH member commented that one would have to be aware of the possibility of receiving erroneous data from some sources. For example, some employers might believe that an LEV system present in a workplace was being effective, when in fact it wasn't and the working atmosphere was dusty. If no external audit review were in operation, the quality of the exposure data would be dependent on those who might not fully understand what they were doing. Another WATCH member agreed that the quality of the data to be input into the database needed to be assured.</p>
7.6	Rob Turner replied that one would have no option but to work with the data provided. The more data was obtained, the more would it be possible to identify the outlying cases that indicated that something was wrong with the data quality. Additionally, having many contributors adding to the database of information in the manner envisaged would make it possible to identify the areas where HSE's limited resources would be best used. He acknowledged that some of the data in NEDB was sparse, one issue being the absence of contextual information surrounding some of the numerical data. Recognition of this weakness added to the potential value of this new approach, the aim being to obtain a full picture of workplace conditions, not just exposure numbers.
7.7	A WATCH member asked for clarification of the sense in which the terms 'deterministic model' and 'Bayesian process' were used during the presentation; from where would the data for each approach originate? Paul Beaumont explained that the term 'deterministic model' was intended to convey predicting exposure levels from first principles and making inferences from which to extrapolate from established data to the unknown. The term 'Bayesian process' was intended to convey predicting from real data the most likely situation and the likelihood of potential alternative situations.
7.8	Another WATCH member expressed his scepticism for the approach. He could not see where the resources and drive for this initiative would come from, given the trends and attitudes over recent years of those potentially involved here.
7.9	The Chairman thanked members for their comments thus far and asked WATCH to consider the actions listed in the cover paper.
7.10	WATCH members suggested that they could support a modification of the first action point, this being that 'a new HSE strategy should be developed with partners to seek practicable ways to capitalise on the factual and qualitative intelligence potentially available from the large volume of exposure assessment information held under modern risk management methods' . WATCH members in general signified their agreement with this recommendation.
7.11	With regard to the second action point, i.e. 'indicators shown to be of value through analysis of the pilot should be converted into a short, standardised set of risk exposure and control descriptors' the Chairman explained that this was about the 'currency' that the envisaged approach would use. The proposal was that short, standardised descriptors should be used within the envisaged database. A WATCH member expressed a concern that there was a timing issue in view of the imminent introduction of REACH; he thought that such descriptors were already well developed within REACH guidance. Anything generated under this new proposed initiative would need to have a strong link to what will be required under REACH. WATCH agreed to this action point in principle, but emphasised that any descriptors would need to be compatible with existing and

	<p>emerging regulatory frameworks, especially REACH.</p> <p>A WATCH member asked for clarification of what the pilot study would involve, if it would be 'a' pilot or 'the' (one and only) pilot, and if the pilot would encompass all features of the proposed strategy? Paul Beaumont explained that it would be a pilot of an element of the proposed new strategy, but not attempt to examine the whole of it.</p>
7.12	<p>In relation to the third action point, a member of WATCH asked if the concept was that the pilot project would be conducted first and then the NEDB modified on the basis of any lessons learned? Paul Beaumont replied that HSE had already committed to modifying the NEDB. WATCH agreed to the third action point being phrased as 'a rationalised set of the new descriptors arising from the pilot should be used to inform any revision of the NEDB, also incorporating with a defined set of COSHH risk control factors'.</p> <p>A number of WATCH members then voiced concern about the specificity of some of the action points; there was a presentational problem in that it appeared as if WATCH was being asked to endorse a detailed, pre-determined course of action. The Chairman explained that HSE was really asking a more general question, which was whether or not the proposed approach was the best way to go with this initiative? Rob Turner reminded WATCH that it had identified 'exposure intelligence' as a new/emerging issue; HSE had made a proposal for how to take this forward, and was now requesting the views of WATCH on the overall proposal.</p>
7.13	<p>The Chairman suggested that the position of WATCH might be captured by saying that the aim of the initiative was laudable and the thinking in the right direction, but there was scepticism about how it could be practically realised, a particular concern being the resource implications.</p> <p>A WATCH member generally supported this summary, but was uncomfortable about the ability to tie in this UK-wide initiative with REACH. Therefore, the Chairman suggested that the emerging position of WATCH was that it believed that REACH would be a dominant influence and that whatever was done under this proposed HSE initiative, its compatibility with REACH requirements and activities would need to be considered. Two members commented that exposure-based waiving of testing requirements was one feature of REACH that could be linked with the directing of this strategy. Another member brought the discussion back to the original new/emerging issue discussion on exposure data in October 2005; he felt that the discussion held today addressed only half of the original issue and said that he would write to the WATCH Secretariat with his views on the totality of the issue originally raised.</p>
7.14	<p>The Chairman sought and received confirmation from WATCH that it made the recommendations reflected in paragraphs 7.10 – 7.12. WATCH supported the conduct of a pilot study to test this proposed new initiative; and considered that such a pilot would provide valuable information on the potential usefulness and viability of the proposed strategy and indication of the resources that would be involved in progressing it.</p>
8	Recycling
8.1	<p>The Chairman introduced Paul Harvey (HSE Policy Group, Manufacturing Sector - waste and recycling), who gave a presentation on the potential occupational health problems associated with the recycling industry. WATCH was informed that the waste and recycling industry had one of the worst safety records, with an accident rate of five times the national average and accounting for a twelfth of all occupational deaths in the UK. Within the population of 160,000 workers in this industry, 4000 accidents had been reported. The proportion of these workers who were employed specifically in the recycling sector was not known. There was some evidence of ill-health amongst workers in this industry, and some of the potential hazards had been identified, but there was little information on the</p>

	extent of the potential for harm or on the characteristics of exposures.
8.2	The Chairman reminded WATCH that it had identified recycling as a new/emerging issue in November 2006. He referred to the agreed course of action from the November meeting; that a report supplied by Peter Ellwood (HSL, Horizon Scanning Unit) had now been sent to Helen Casstles (an ad hoc 'COPI' member at the November 2006 meeting). Once Helen's feedback is received, the report and her comments will be given to WATCH. Paul Harvey was aware of the report and commented that it was a résumé of the current situation; it did not predict what will happen in recycling in the future. The Chairman commented that WATCH should therefore not expect to see future trends predicted in the report.
8.3	A WATCH member informed the committee that in Denmark a report on the different ways of recycling PVC plastics had been produced, covering hard and soft plastics (thought to be problematic because of the inclusion of phthalates), exploring appropriate ways of handling these materials. He suggested that it would be useful to engage with people working in the industry to determine what new technologies were emerging and what problems and concerns these might raise.
8.4	A WATCH member noted that during the presentation, it had been stated that the number of people involved in the recycling industry was relatively small. He wondered how the numbers of workers in this industry compared with those in the chemical industry? Paul Harvey replied that at present precise numbers were not known. However, the largest proportion of people employed in this industry are engaged in waste collection.
8.5	A WATCH member thought that it was right to include this topic in the list of new/emerging issues. He thought that much of the industry and the potential exposure situations would fall within the scope of COSHH, in that employers should be assessing exposures and controlling them. He also recollected that from previous experience of battery factories, recycling was the highest exposure activity. Therefore, he could see the potential for some aspects of recycling to be relatively high-risk areas.
8.6	Paul Harvey added that there should be benefits for workplace risk management from the environmental legislation that is associated with recycling activities, in that each of the waste streams has to be treated in authorised, licensed facilities. However, a WATCH member responded that in authorising/licensing such facilities the Environment Agency would not necessarily focus on any occupational hygiene issues.
8.7	The Chairman thanked Paul Harvey and concluded the discussion by saying that the original plan for advancing consideration of 'recycling' as a new/emerging issue would be followed. He requested that if any WATCH member would like this issue to be discussed further at the June 2007 meeting, he/she should inform the WATCH Secretariat. He also invited Paul Harvey to liaise with the Secretariat if he had any particular scientific or technical issues that might merit exploration, within the broader context of policy and strategy in this area.
8.8	Actions: When they are received, HSE will combine the views of Helen Casstles with the report on recycling from Peter Ellwood and distribute to WATCH.
9	Date of next meeting
9.1	The Chairman thanked everybody for their contributions. The Secretary informed WATCH that the date of the next meeting is 19 th June in Bootle. The November 2007 meeting will be held on the 7 th and 8 th November at a venue yet to be confirmed. The meeting closed at 15.45.