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HEALTH AND SAFETY COMMISSION
ADVISORY COMMITTEE ON TOXIC SUBSTANCES
Report from Watch

This report informs ACTS of the business conducted by WATCH at its meeting on 19 September 2002.

1. Respirable Crystalline Silica: Phase II

Phase II of the Respirable Crystalline Silica project, dealing with carcinogenicity, had been cleared with WATCH members by correspondence between the May and September meetings. This project is now finished and will be published by HSE as quickly as possible.

2. Carbon Black

WATCH had extensive discussions about carbon black at its January, May and September 2002 meetings. Clear verdicts were reached on a number of aspects. However, the main issue discussed remained contentious throughout the three meetings. This concerned the health significance of the principal findings of two large epidemiological studies in carbon black manufacturing workers, one from the USA and the other a multi-centre study in Europe. WATCH is now being consulted by correspondence on its agreement to the following statement as representing the position it has arrived at:

“WATCH concluded that there are relatively good data available to establish an exposure–response relationship for the respiratory effects of carbon black within the exposure range covered by the American and European studies of carbon black–exposed workers. The relationships that have been identified suggest that at all exposure levels across this exposure range there is the potential for exposure to carbon black to cause a decline in lung function (FEV₁) beyond that which would occur from age alone, albeit a decline that is relatively small. There is also some evidence for an increase in respiratory symptoms. The data did not enable WATCH to identify a level of exposure in this range at which there appears to be no effect on FEV₁. On this basis, and in the absence of an agreed general criterion for what scale of decline in FEV₁ might be deemed insignificant in health terms, WATCH concluded that it could not recommend a specific OEL within the current UK OEL framework. WATCH recognised that this position is not consistent with one or two recommendations that have been made in the past for other dusts but considered that a number of broader issues relating to the health effects of dusts are now

emerging which warrant consideration in relation to setting OELs for dusts in general. The Chairman suggested that further consideration of the establishment of an OEL for carbon black should be deferred until the operational rules by which the new OEL framework will operate have been determined. If carbon black is again considered it would be useful if this could be in the context of a broader discussion on health issues relating to dusts in general”.

3. Meta-analysis to produce quantitative cancer risk estimates for PAH-exposed workers

Dr Ben Armstrong and Dr Emma Hutchinson from the London School of Hygiene and Tropical Medicine presented to WATCH the key findings from their meta-analysis of studies in which the risk of lung and/or bladder cancer in polycyclic aromatic hydrocarbon (PAH) – exposed workers had been quantified. Dr Armstrong presented risk estimates relating to various levels of exposure to benzo[a]pyrene[BaP]. WATCH concluded that the meta-analysis was scientifically robust within a specified exposure range and could provide a potentially useful aid to ACTS members in their deliberations on the value of a prospective MEL for BaP, an item due for presentation to ACTS in March 2003.

4. Peracetic acid

Peracetic acid had been introduced into the WATCH programme primarily because it has been viewed as a potential substitute for glutaraldehyde in the sterilisation of medical equipment. In this respect the peracetic acid project was linked to the dialdehyde project discussed below. WATCH endorsed HSE's assessment of the toxicological hazards of peracetic acid and agreed that the key concern was for local site-of-contact irritation. WATCH considered that because of the paucity of relevant data it could not be definitive about the dose-response characteristics for such sensory irritation; it was deemed to be not possible to clearly identify the highest level of exposure to peracetic acid at which no adverse effects on human health would be anticipated. The positions arrived at by WATCH are intended to establish a toxicological basis from which risk management advice for peracetic acid can be developed in the future.

5. Chemical substitutes for glutaraldehyde in sterilisation of medical equipment: succinic dialdehyde (SDA) and ortho-phthalaldehy (OPA).

WATCH had been asked to look at these two substances in view of them having being introduced into the market as potential alternatives to glutaraldehyde in the sterilisation of medical equipment. HSE was anxious to ascertain as clear a picture of their known and potential toxicological properties as was possible from the relatively sparse data available. A particular issue is their structural analogy, as dialdehydes, with glutaraldehyde and in this context their potential to cause asthma. WATCH noted that there was very little information on the toxicological properties of SDA and OPA. On the basis of the information that is available, WATCH felt that both substances might have the potential to cause occupational asthma. It recommended that control strategies for both substances should take account of this potential health hazard.

6. “Dealing with uncertainty” project

WATCH received an update on progress from Alan Moses, the WATCH member leading this project. The intention is to have a more substantial discussion of this item at the next WATCH meeting in January 2003. An important consideration is that the project is aimed at producing an approach for use (by WATCH) in toxicological risk assessment and the recommendation of occupational exposure limits in the future. Its value depends on what future role is planned for WATCH in this context.

7. Carcinogenicity classification of Refractory Ceramic Fibres (RCFs)

WATCH had discussed this issue with representatives of ECFIA at its meeting in May 2002. At that meeting WATCH had reached the conclusion that it is still appropriate for RCFs to carry the carcinogen category 2 classification. WATCH also felt that on this basis, the logic that had been applied in the ACTS paper of March 2002, arguing for a more stringent MEL for RCFs compared with other forms of MMMF remains unchanged. Subsequent to the May 2002 meeting ECFVIA had sent in an additional submission. At the September meeting WATCH was asked if it wanted to re-open its deliberations on RCFs in the light of this submission. WATCH members indicated that the views expressed in this submission did not want a reopening of the debate at WATCH.

The next meeting of WATCH, which will be its last under current constitutional arrangements, will take place on 24 January 2003 in Rose Court.

**STEVE FAIRHURST
WATCH CHAIRMAN**

November 2002